OIL ANALYSIS REPORT

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

KENNEDY [FRANK/23567]

VOLVO PENTA 7011464668

Starboard Diesel Engine

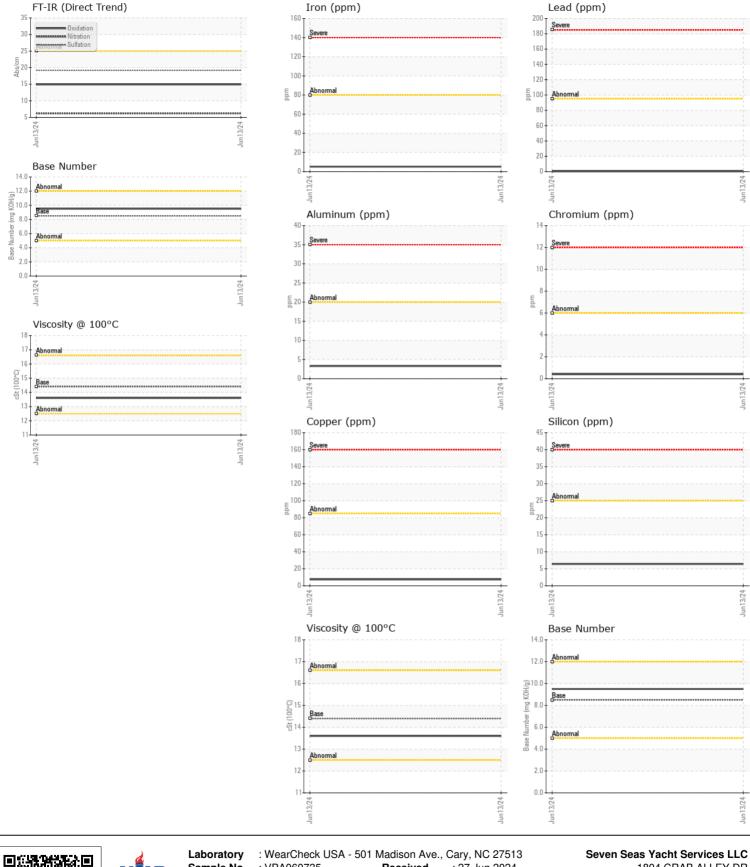
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA060735		
	Sample Date		Client Info		13 Jun 2024		
	Machine Age	hrs	Client Info		0		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR All component wear rates are normal.	Iron	nom	ASTM D5185m	~80	5		
	Chromium	ppm ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m		<1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver		ASTM D5185m		0		
	Aluminum	ppm ppm	ASTM D5185m		3		
	Lead		ASTM D5185m				
	Copper	ppm ppm	ASTM D5185m		<1 7		
	Tin	ppm	ASTM D5185m		، <1		
	Vanadium		ASTM D5185m	20	<1		
	White Metal	ppm scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
		Scalai	visuai				
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	6		
	Potassium	ppm	ASTM D5185m	>20	2		
There is no indication of any contamination in the oil.	Fuel		WC Method	>4.0	<1.0		
	Water		WC Method	>0.1	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844		0.2		
	Nitration	Abs/cm	*ASTM D7624	>20	6.2		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2		
	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		
	• •				_		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		7		
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.	Boron	ppm	ASTM D5185m		40		
	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m	100	49		
	Manganese	ppm	ASTM D5185m	1=0	<1		
	Magnesium	ppm	ASTM D5185m		628		
	Calcium	ppm	ASTM D5185m	3000	1397		
	Phosphorus	ppm	ASTM D5185m		953		
	Zinc	ppm	ASTM D5185m		1203		
	Sulfur	ppm	ASTM D5185m		3091		
	Oxidation	Abs/.1mm	*ASTM D7414		14.9		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.5		

Visc @ 100°C cSt

ASTM D445 14.4

13.6



Sample No. Received 1804 CRAB ALLEY DR : VPA060735 : 27 Jun 2024 Lab Number : 06221971 Tested CHESTER, MD : 27 Jun 2024 Unique Number : 11100168 Diagnosed : 28 Jun 2024 - Don Baldridge US 21619 Test Package : MOB 1 (Additional Tests: TBN) Contact: Stephanie Wright Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. stephanie@sevenseasys.com * - 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) F:

Contact/Location: Stephanie Wright - VP601781 Page 2 of 2