WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

MIKE ROSSMAN [GEOFF]
Machine Id
NORTHERN LIGHTS 6732-54560

Center Genset

VOLVO PENTA SAE 15W40 (2 GAL)

ECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA061931		
	Sample Date		Client Info		23 May 2024		
	Machine Age	hrs	Client Info		249		
	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		
/EAD	lua.a		ACTM DE105		_		
/EAR	Iron	ppm	ASTM D5185m		5		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m	>2	<1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m		1		
	Aluminum	ppm	ASTM D5185m	>12	2		
	Lead	ppm	ASTM D5185m		1		
	Copper	ppm	ASTM D5185m	>70	8		
	Tin	ppm	ASTM D5185m	>15	<1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
ONTAMINATION	Silicon	nnm	ASTM D5185m	- 25	8		
ONTAMINATION	Potassium	ppm	ASTM D5185m		13		
There is no indication of any contamination in the oil.	Fuel	ppm					
			WC Method	>4.0	<1.0		
	Water		WC Method	>0.1	NEG		
	Glycol	0/	WC Method		NEG		
	Soot %	%	*ASTM D7844		0		
	Nitration	Abs/cm	*ASTM D7624		5.0		
	Sulfation	Abs/.1mm	*ASTM D7415		18.3		
	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		
LUID CONDITION	Sodium	ppm	ASTM D5185m		3		
	Boron	ppm	ASTM D5185m		13		
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		<1		
	Molybdenum	ppm	ASTM D5185m		62		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		867		
	Calcium	ppm	ASTM D5185m		1094		
	Phosphorus		ASTM D5185m		933		
		ppm					
	Zinc	ppm	ASTM D5185m		1124		
	Sulfur	ppm	ASTM D5185m	05	3140		
	Oxidation Base Number (BN)	Abs/.1mm	*ASTM D7414	>25	13.6		
	Paga Number (DNI)	ma KALIa	ASTM 172806		10.1		





Laboratory Sample No.

Lab Number : 06191956

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VPA061931

Unique Number : 11048708

Received : 28 May 2024 **Tested** : 29 May 2024 Diagnosed

: 30 May 2024 - Don Baldridge

Endor Marine LLC - Coastal Marine - 152124 4300 11th Ave. NW

SEATTLE, WA US 98107

Contact: WILLOW YANARELLA service@coastalmarineengine.com

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Test Package : MOB 1 (Additional Tests: TBN) 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.

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