WEAR CONTAMINATION FLUID CONDITION

ABNORMAL ABNORMAL NORMAL

Area

## MATTHEW SIGMAN [SAM] VOLVO PENTA 51220379913 - INBOARD Component

Gearbox

**VOLVO PENTA SAE 15W40 (3 LTR)** 

VOLVO PENTA SAE 15W4U (3 LTR)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Number		Client Info		VPA060413		
	Sample Date		Client Info		22 May 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		N/A		
	Sample Status				ABNORMAL		
WE A B							
WEAR	PQ		ASTM D8184		47		
The copper level is abnormal. All other component wear rates are normal.	Iron	ppm	ASTM D5185m		47		
	Chromium	ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m	>10	0		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m	>5	3		
	Lead	ppm	ASTM D5185m	>65	1		
	Copper	ppm	ASTM D5185m	>80	<u> </u>		
	Tin	ppm	ASTM D5185m	>8	2		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	<b>&gt;</b> 20	11		
There is a light concentration of water present in the oil.	Potassium	ppm	ASTM D5185m		3		
	Water	%	ASTM D6304	>0.2	<u>▲</u> 0.307		
	ppm Water	ppm	ASTM D6304		<u>△</u> 3070		
	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		*Visual	>0.2	0.2%		
<u> </u>			Visuai	<i>&gt;</i> 0. <i>L</i>			
FLUID CONDITION	Sodium	ppm	ASTM D5185m		21		
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185m		263		
	Barium	ppm	ASTM D5185m		26		
	Molybdenum	ppm	ASTM D5185m		73		
	Manganese	ppm	ASTM D5185m		2		
	Magnesium	ppm	ASTM D5185m		692		
	Calcium	ppm	ASTM D5185m		1483		
	Phosphorus	ppm	ASTM D5185m		830		
	Zinc	ppm	ASTM D5185m		917		
	Sulfur	ppm	ASTM D5185m		4289		
	Visc @ 40°C	cSt	ASTM D445		78.0		





Certificate L2367

Laboratory Sample No.

Lab Number : 06195707 Unique Number : 11057830

: VPA060413

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 30 May 2024 **Tested** 

Diagnosed Test Package : MOB 1 ( Additional Tests: KF, PQ )

: 03 Jun 2024 : 04 Jun 2024 - Jonathan Hester

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

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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)

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