WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

Machine Id

## **VOLVO PENTA NOT GIVEN VPA047533**

**Port Diesel Engine** 

**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (3 GAL)** 

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number	JOIN	Client Info	anner wil	VPA047533		
	Sample Date		Client Info		04 Apr 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		
NEAD.			AOTM DE LOE		_		
WEAR	Iron	ppm	ASTM D5185m		7		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		0		
	Nickel	ppm	ASTM D5185m		1		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		<1		
	Lead	ppm	ASTM D5185m ASTM D5185m		2 8		
	Copper Tin	ppm	ASTM D5185m		0		
	Vanadium	ppm	ASTM D5185m	>5	0 <1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
<u></u>			Visuai	NONE			
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	3		
	Potassium	ppm	ASTM D5185m	>20	0		
No evidence of coolant present in the oil. 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		0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	5.6		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0		
	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		<1		
I LOID CONDITION	Boron	ppm	ASTM D5185m	2.5	<1		
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		0		
	Molybdenum	ppm	ASTM D5185m		60		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		955		
	Calcium	ppm	ASTM D5185m	2057	1025		
	Phosphorus	ppm	ASTM D5185m		1032		
	Zinc	ppm	ASTM D5185m		1211		
	Sulfur	ppm	ASTM D5185m		3677		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5		
	Base Number (BN)	mg KOH/g	ASTM D2896	10	9.9		
	Visc @ 100°C	cSt	ASTM D445		12.8		







Certificate L2367

Laboratory

Sample No.

Lab Number : 06151562 Unique Number : 10981640

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VPA047533

Received **Tested** Diagnosed

: 19 Apr 2024 : 19 Apr 2024 - Jonathan Hester

: 17 Apr 2024

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

Bay Marine Boatworks Inc. 310 West Cutting Blvd.

RICHMOND, CA US 94804

Contact: David Vandervoort max@baymarineboatworks.com

T: F:

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