WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

Area

SEA SALT

## **VOLVO PENTA 7008460208**

Starboard Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History
	Sample Number		Client Info		VPA035034		
No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Date		Client Info		17 Jul 2024		
	Machine Age	hrs	Client Info		608		
	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		
VEAR	Iron	ppm	ASTM D5185m	<b>√</b> 8∩	17		
VLAIT	Chromium	ppm	ASTM D5185m		<1 <1		
All component wear rates are normal.	Nickel		ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm					
		ppm	ASTM D5185m		2		
	Aluminum	ppm	ASTM D5185m		<1		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		35		
	Tin	ppm	ASTM D5185m	>9	0		
	Vanadium	ppm	ASTM D5185m	NONE	0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
ONTAMINATION	Silicon	ppm	ASTM D5185m	>25	12		
There is no indication of any contamination in the oil.	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		0.7		
	Nitration	Abs/cm	*ASTM D7624	>20	6.3		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8		
	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		
	<b>Emulsified Water</b>	scalar	*Visual	>0.1	NEG		
LUID CONDITION	C		ACTA DE10E		•		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2 1		
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				
	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		63		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		1108		
	Calcium	ppm	ASTM D5185m		1196		
	Phosphorus	ppm	ASTM D5185m		1134		
	Zinc	ppm	ASTM D5185m		1410		
	Sulfur	ppm	ASTM D5185m		4398		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.9		
	Base Number (BN)	mg KOH/g	ASTM D2896		9.60		
	Visc @ 100°C	cSt	ASTM D445		13.78		





Certificate L2367

Laboratory Sample No. Unique Number : 11136223

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VPA035034 Lab Number : 06242073

Received : 19 Jul 2024 **Tested** Diagnosed

: 19 Jul 2024

: 19 Jul 2024 - Doug Bogart Test Package : MOB 1 ( Additional Tests: TBN )

US 33314 Contact: service manager service@midiflorida.com T:

Marine International Diesels Inc.

3600 HACIENDA BLVD UNIT G

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

To discuss this sample report, contact Customer Service at 1-800-237-1369.

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

DAVIE, FL

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