

Area **GARY MERNELSTREN [6506]** VOLVO PENTA D6-340D-G A1099842

Component Starboard Diesel Engine Fluid

{not provided} (--- GAL)

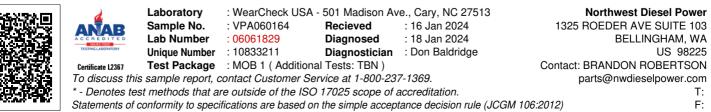
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		VPA060164		
Resample at the next service interval to monitor.	Sample Date		Client Info		11 Jan 2024		
	Machine Age	hrs	Client Info		181		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		Not Changd		
	Sample Status				NORMAL		
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m		11		
	Chromium	ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m	>2	0		
	Silver	ppm	ASTM D5185m	>2	0		
	Aluminum	ppm	ASTM D5185m	>20	12		
	Lead	ppm	ASTM D5185m	>95	<1		
	Copper	ppm	ASTM D5185m	>85	3		
	Tin	ppm	ASTM D5185m	>9	0		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon			05	•		
		ppm		>25	9 2		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m				
	Fuel			>4.0	<1.0		
	Water		WC Method	>0.1	NEG		
	Glycol	0/	WC Method		NEG		
	Soot %	%	*ASTM D7844		0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	4.8		
	Sulfation	Abs/.1mm	*ASTM D7415		22.0		
	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		
	Boron	ppm	ASTM D5185m		330		
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.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		113		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		640		
	Calcium	ppm	ASTM D5185m		1528		
	Phosphorus	ppm	ASTM D5185m		720		
	Zinc		ASTM D5185m		868		
	Sulfur	ppm	ASTM D5185m				
		ppm		- OF	2535		
	Oxidation	Abs/.1mm	*ASTM D7414	>20	16.1		
	Base Number (BN)	mg KUH/g	ASTM D2896		9.6		

Visc @ 100°C cSt

ASTM D445

13.7





Contact/Location: BRANDON ROBERTSON - VP759009

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