



## MARTIN SCHULZ 505587 VOLVO PENTA A 1 165398 - STARBOARD DIESEL ENGINE

Sample No: VPA049826

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMAT	LIUM			
SAMILEE IM OMMA	IION			
Sample Number		VPA049826	VPA041103	 
Sample Date		21 Sep 2023	08 Dec 2022	 
Machine Hours		239	188	 
Oil Hours		51	188	 
Oil Changed		Changed	Changed	 
Sample Status		NORMAL	NORMAL	 
OIL CONDITION				
Visc @ 100°C	cSt	<b>13.8</b>	□13.0	 
Base Number (BN)	mg KOH/g	■8.4	11.8	 
Oxidation (PA)	%	56	84	 
CONTRACTOR				
CONTAMINATION				
Soot %	%	<b>0.2</b>	<b>1</b>	 
Nitration (PA)	%	54	65	 
Sulfation (PA)	%	51	69	 
Glycol	%	NEG	NEG	 
Fuel	%	<1.0	<1.0	 
Silicon	ppm	<b>■7</b>	<b>2</b> 1	 
Sodium	ppm	<b>2</b>	<b>2</b>	 
Potassium	ppm	<b>3</b>	<b>4</b>	 
WEAR METALS				
Iron	ppm	8	□33	 
Copper	ppm	<u> </u>	21	 
Lead	ppm	<b>2</b>	<b>1</b> 9	 
Tin	ppm	<b>■</b> <1	<b>4</b>	 
Aluminum	ppm	<b>1</b> 5	<b>1</b> 2	 
Chromium	ppm	<b>=</b> <1	3	 
Molybdenum	ppm	<b>66</b>	<b>4</b> 1	 
Nickel		<b>■</b> <1	2	 
Titanium	ppm	■0	□ < 1	 
Silver	ppm	<b>0</b>	<1	 
Manganese		<b>■</b> <1	<b>2</b>	 
Vanadium	ppm	0	<1	 
	ppm		*1	
ADDITIODA				
Calcium	ppm	<b>1900</b>	■1673	 
Magnesium	ppm	<b>174</b>	<b>448</b>	 
Zinc	ppm	<b>1157</b>	■1069	 
Phosphorus	ppm	<b>1014</b>	■888	 
Barium	ppm	<b>0</b>	<b>-</b> <1	 
Boron	ppm	118	■48	 

## **Jefferson Beach Yacht Sales Inc**

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## Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. 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.

 Depot:
 VP297371

 Unique No:
 10671642

 Signed:
 Sean Felton

 Report Date:
 02 Oct 2023

## **OIL ANALYSIS REPORT**



