



BRUCE GOODMAN VOLVO PENTA 7011359230 - STARBOARD DIESEL ENGINE

Sample No: VPA056661

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

SAMPLE INFORMAT	TION			
Camanda Numahan		VPA056661	VPA039585	
Sample Number				
Sample Date		08 Sep 2023	21 Sep 2022	
Machine Hours		646	0	
Oil Hours		0	0	
Oil Changed		N/A	N/A	
Sample Status		NORMAL	NORMAL	
OIL CONDITION				
Visc @ 100°C	cSt	13.1	1 3.2	
Base Number (BN)	mg KOH/g	■9.7	11.4	
Oxidation (PA)	%	57	60	
CONTAMINATION				
Soot %	%	0.2	0.2	
Nitration (PA)	%	48	49	
Sulfation (PA)	%	53	56	
` '	%	NEG	NEG	
Glycol				
Fuel	%	<1.0	<1.0	
Silicon	ppm	■ 5	4	
Sodium	ppm	■1	- <1	
Potassium	ppm	■ <1	 <1	
WEAR METALS				
Iron	ppm	■ 3	2	
Copper	ppm	12	1 0	
Lead	ppm	■<1	<1	
Tin	ppm	_ ■ <1	<u> </u>	
Aluminum	ppm	■4	1	
Chromium	ppm	= <1	<1	
Molybdenum	ppm	■61	□58	
Nickel	ppm	■ <1	■ <1	
Titanium		□ 0	0	
	ppm			
Silver	ppm	0	0	
Manganese	ppm	■ <1	 <1	
Vanadium	ppm	0	<1	
ADDITIVES				
Calcium	ppm	1105	■1049	
Magnesium	ppm	1038	■890	
Zinc	ppm	1365	1182	
Phosphorus	ppm	1124	■997	
Barium	ppm	■0	<u> </u>	
Boron	ppm	1	3	
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BAY MARINE

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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 suitable for further service.

Depot:VP1174336Unique No:10647186Signed:Jonathan HesterReport Date:19 Sep 2023

OIL ANALYSIS REPORT



