

OIL ANALYSIS REPORT



PEDRO GONZALEZ VOLVO PENTA A1134216 - STARBOARD DIESEL ENGINE

Sample No: VPA036888
Oil Type: SHELL ROTELLA T 15W40

SAMPLE INFORMATION

Sample Number	VPA036888	VPA043982	VPA039602	---
Sample Date	15 Jan 2024	16 Nov 2022	03 Nov 2021	---
Machine Hours	175	131	76	---
Oil Hours	175	131	76	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

Larry's Lighthouse Marina
 1250
 AQUEBOGUE, NY
 US 11931
 Contact: MAX FUHLBRUGGE
 info@lighthousemarina.com
 T: x
 F: x

OIL CONDITION

Visc @ 100°C	cSt	14.1	14.1	13.0	---
Base Number (BN)	mg KOH/g	9.5	10.2	---	---
Oxidation (PA)	%	62	73	80	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.3	0.2	0.3	---
Nitration (PA)	%	67	53	46	---
Sulfation (PA)	%	53	62	63	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	5	9	21	---
Sodium	ppm	2	<1	4	---
Potassium	ppm	7	8	1	---

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.

WEAR METALS

Iron	ppm	8	15	14	---
Copper	ppm	4	8	18	---
Lead	ppm	3	7	10	---
Tin	ppm	<1	<1	3	---
Aluminum	ppm	2	4	6	---
Chromium	ppm	1	1	1	---
Molybdenum	ppm	2	8	37	---
Nickel	ppm	1	0	2	---
Titanium	ppm	0	0	<1	---
Silver	ppm	0	0	<1	---
Manganese	ppm	0	<1	<1	---
Vanadium	ppm	<1	0	0	---

ADDITIVES

Calcium	ppm	2063	2183	1543	---
Magnesium	ppm	52	99	450	---
Zinc	ppm	1191	1171	989	---
Phosphorus	ppm	1030	1006	880	---
Barium	ppm	0	0	0	---
Boron	ppm	179	170	65	---

Depot: VP610438
Unique No: 10843070
Signed: Angela Borella
Report Date: 23 Jan 2024

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GRAPHS

