

OIL ANALYSIS REPORT

VOLVO PENTA

DANIEL KASIDI LEONESSA VOLVO PENTA 7008488108 - STARBOARD DIESEL ENGINE

Sample No: VPA055985

Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA055985	VPA045498	VPA031075	---
Sample Date	04 Aug 2023	07 Oct 2022	26 Jan 2021	---
Machine Hours	327	128	34	---
Oil Hours	244	0	10	---
Oil Changed	N/A	N/A	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

OIL CONDITION

Visc @ 100°C	cSt	█ 13.4	█ 13.5	█ 13.59	---
Base Number (BN)	mg KOH/g	█ 9.2	█ 11.4	---	---
Oxidation (PA)	%	59	61	65	---

CONTAMINATION

Soot %	%	█ 0.3	█ 0.2	█ 0.1	---
Nitration (PA)	%	53	49	44	---
Sulfation (PA)	%	54	56	58	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 21	█ 18	█ 36	---
Sodium	ppm	█ 0	█ 2	█ 4	---
Potassium	ppm	█ 2	█ 2	█ 11	---

WEAR METALS

Iron	ppm	█ 20	█ 12	█ 9	---
Copper	ppm	█ 46	█ 9	█ 6	---
Lead	ppm	█ <1	█ 0	█ 0	---
Tin	ppm	█ <1	█ <1	█ 0	---
Aluminum	ppm	█ 2	█ 1	█ 2	---
Chromium	ppm	█ 1	█ <1	█ <1	---
Molybdenum	ppm	█ 52	█ 51	█ 2	---
Nickel	ppm	█ 1	█ 2	█ 0	---
Titanium	ppm	█ 0	█ 0	█ <1	---
Silver	ppm	█ 2	█ 0	█ <1	---
Manganese	ppm	█ <1	█ <1	█ <1	---
Vanadium	ppm	█ 0	█ <1	█ 0	---

ADDITIVES

Calcium	ppm	█ 1411	█ 1393	█ 2514	---
Magnesium	ppm	█ 742	█ 764	█ 11	---
Zinc	ppm	█ 1244	█ 1318	█ 1107	---
Phosphorus	ppm	█ 1074	█ 1085	█ 984	---
Barium	ppm	█ 0	█ 2	█ 0	---
Boron	ppm	█ 8	█ 12	█ 59	---

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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: VP288530
Unique No: 10589070
Signed: Doug Bogart
Report Date: 08 Aug 2023

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GRAPHS

