

OIL ANALYSIS REPORT

VOLVO PENTA

ED RICHARDS SAM/502036 VOLVO PENTA A278600 - STARBOARD DIESEL ENGINE

Sample No: VPA055629

Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA055629	VPA047794	VPA048129	---
Sample Date	05 Jul 2023	07 Dec 2022	03 May 2022	---
Machine Hours	1071	1036	991	---
Oil Hours	0	0	0	---
Oil Changed	Changed	N/A	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	█ 13.5	█ 13.3	█ 13.4	---
Base Number (BN)	mg KOH/g	█ 10.1	█ 10.8	█ 10.1	---
Oxidation (PA)	%	60	63	54	---

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.

CONTAMINATION

Soot %	%	█ 0.4	█ 0.4	█ 0.2	---
Nitration (PA)	%	58	58	42	---
Sulfation (PA)	%	55	59	52	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 4	█ 3	█ 5	---
Sodium	ppm	█ <1	█ 0	█ <1	---
Potassium	ppm	█ 2	█ 2	█ <1	---

WEAR METALS

Iron	ppm	█ 4	█ 8	█ 5	---
Copper	ppm	█ 6	█ 6	█ 2	---
Lead	ppm	█ <1	█ <1	█ <1	---
Tin	ppm	█ 0	█ <1	█ <1	---
Aluminum	ppm	█ 6	█ <1	█ <1	---
Chromium	ppm	█ 0	█ <1	█ <1	---
Molybdenum	ppm	█ 74	█ 60	█ 59	---
Nickel	ppm	█ 0	█ 0	█ <1	---
Titanium	ppm	█ 0	█ 0	█ 0	---
Silver	ppm	█ 0	█ <1	█ <1	---
Manganese	ppm	█ 0	█ <1	█ <1	---
Vanadium	ppm	0	0	0	---

ADDITIVES

Calcium	ppm	█ 1278	█ 1129	█ 1085	---
Magnesium	ppm	1199	█ 873	█ 985	---
Zinc	ppm	█ 1476	█ 1172	█ 1279	---
Phosphorus	ppm	1242	█ 983	█ 1104	---
Barium	ppm	█ 12	█ 0	█ 0	---
Boron	ppm	█ 0	█ 4	█ 5	---

Depot: VP794951
Unique No: 10551644
Signed: Don Baldrige
Report Date: 13 Jul 2023

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GRAPHS

