

OIL ANALYSIS REPORT



502689 VOLVO PENTA A511777 - STARBOARD DIESEL ENGINE

Sample No: VPA058198
Oil Type: DIESEL ENGINE OIL SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA058198	VPA031095	---	---
Sample Date	09 Feb 2024	20 Jan 2023	---	---
Machine Hours	1024	898	---	---
Oil Hours	126	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

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OIL CONDITION

Visc @ 100°C	cSt	13.8	14.0	---	---
Base Number (BN)	mg KOH/g	8.5	8.8	---	---
Oxidation (PA)	%	53	60	---	---

CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.5	0.5	---	---
Nitration (PA)	%	66	56	---	---
Sulfation (PA)	%	52	61	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	5	7	---	---
Sodium	ppm	2	2	---	---
Potassium	ppm	3	2	---	---

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	21	28	---	---
Copper	ppm	4	5	---	---
Lead	ppm	2	2	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	42	55	---	---
Chromium	ppm	3	4	---	---
Molybdenum	ppm	20	110	---	---
Nickel	ppm	2	2	---	---
Titanium	ppm	<1	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	0	<1	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	1172	1459	---	---
Magnesium	ppm	645	638	---	---
Zinc	ppm	727	861	---	---
Phosphorus	ppm	710	706	---	---
Barium	ppm	10	0	---	---
Boron	ppm	105	342	---	---

Depot: VP179089
Unique No: 10885572
Signed: Don Baldrige
Report Date: 20 Feb 2024

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GRAPHS

