

OIL ANALYSIS REPORT



DAVIA LOREN 1610120 VOLVO A439125 - PORT DIESEL ENGINE

Sample No: VPA044473

Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

SAMPLE INFORMATION

Sample Number	VPA044473	VPA046323	VPA026041	VPA025952
Sample Date	15 May 2024	27 Mar 2023	21 Jan 2022	14 May 2020
Machine Hours	0	519	447	326
Oil Hours	0	0	121	0
Oil Changed	N/A	Changed	Changed	Changed
Sample Status	NORMAL	ATTENTION	ATTENTION	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.3	12.3	12.3	13.8
Base Number (BN)	mg KOH/g	7.7	9.2	11.0	---
Oxidation (PA)	%	57	56	68	67

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.4	0.1	0.2	0.3
Nitration (PA)	%	56	48	64	67
Sulfation (PA)	%	53	53	60	63
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	0.1	<1.0
Silicon	ppm	6	8	8	20
Sodium	ppm	2	<1	2	4
Potassium	ppm	2	<1	0	<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	18	14	23	25
Copper	ppm	6	4	7	10
Lead	ppm	2	<1	2	3
Tin	ppm	<1	0	<1	1
Aluminum	ppm	3	<1	1	5
Chromium	ppm	<1	0	<1	1
Molybdenum	ppm	62	60	61	69
Nickel	ppm	2	<1	2	2
Titanium	ppm	<1	0	<1	0
Silver	ppm	<1	<1	<1	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	1082	1101	1167	1790
Magnesium	ppm	959	984	898	590
Zinc	ppm	1221	1299	1201	874
Phosphorus	ppm	1124	1057	1005	762
Barium	ppm	0	0	0	0
Boron	ppm	<1	13	43	250

Depot: VP99031103
Unique No: 11036733
Signed: Jonathan Hester
Report Date: 23 May 2024

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VOLVO PENTA

GRAPHS

