

OIL ANALYSIS REPORT



ARIES VOYAGER ARIES VOYAGER VOLVO PENTA A888115 - PORT DIESEL ENGINE

Sample No: VPA053741
Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA053741	VPA056439	VPA045190	VPA028579
Sample Date	01 Jul 2024	25 Jul 2023	18 Aug 2022	15 Jun 2021
Machine Hours	983	861	710	0
Oil Hours	0	100	0	130
Oil Changed	Changed	Changed	N/A	N/A
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.6	14.0	14.0	13.8
Base Number (BN)	mg KOH/g	9.8	9.7	10.8	---
Oxidation (PA)	%	58	71	69	63

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.4	0.4	0.5	0.5
Nitration (PA)	%	55	78	73	63
Sulfation (PA)	%	54	60	62	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	21	3	4
Sodium	ppm	2	1	2	3
Potassium	ppm	1	0	<1	<1

WEAR METALS

Iron	ppm	13	12	13	14
Copper	ppm	9	13	10	5
Lead	ppm	2	<1	2	2
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	2	2	4	0
Chromium	ppm	<1	<1	1	<1
Molybdenum	ppm	62	59	61	61
Nickel	ppm	1	2	2	1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	<1	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	<1	<1	0

ADDITIVES

Calcium	ppm	1107	1091	1054	1066
Magnesium	ppm	999	1023	934	991
Zinc	ppm	1339	1266	1285	1196
Phosphorus	ppm	1168	1006	1042	1033
Barium	ppm	0	0	1	0
Boron	ppm	0	0	2	5

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: 11114675
Signed: Jonathan Hester
Report Date: 10 Jul 2024

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VOLVO PENTA

GRAPHS

