

OIL ANALYSIS REPORT

VOLVO PENTA

AQUINNAH M56579 - DIESEL ENGINE

Sample No: VPA058472

Oil Type: SHELL ROTELLA T 15W40

SAMPLE INFORMATION

Sample Number	VPA058472	VPA041305	VPA043413	VPA033169
Sample Date	28 Nov 2023	06 Feb 2023	29 Dec 2021	21 Jan 2021
Machine Hours	974	1171	628	499
Oil Hours	122	226	127	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	NORMAL

The Talaria Company

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OIL CONDITION

Visc @ 100°C	cSt	13.2	14.7	14.2	14.0
Base Number (BN)	mg KOH/g	8.1	6.9	8.6	---
Oxidation (PA)	%	66	75	78	70

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.5	0.3	0.2
Nitration (PA)	%	73	82	76	66
Sulfation (PA)	%	55	60	61	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	5	3	4
Sodium	ppm	9	3	5	4
Potassium	ppm	0	6	7	4

WEAR METALS

Iron	ppm	10	25	14	10
Copper	ppm	150	160	58	8
Lead	ppm	3	2	<1	4
Tin	ppm	0	<1	<1	0
Aluminum	ppm	3	11	16	1
Chromium	ppm	<1	3	2	<1
Molybdenum	ppm	59	47	4	20
Nickel	ppm	<1	2	<1	<1
Titanium	ppm	0	0	<1	<1
Silver	ppm	<1	0	<1	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	<1	0

ADDITIVES

Calcium	ppm	2073	1828	2324	2522
Magnesium	ppm	369	368	36	48
Zinc	ppm	1361	1273	1149	1187
Phosphorus	ppm	1090	1003	1012	1003
Barium	ppm	0	<1	0	0
Boron	ppm	34	92	100	98

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other 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: VP592286
Unique No: 10767888
Signed: Sean Felton
Report Date: 05 Dec 2023

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GRAPHS

