

OIL ANALYSIS REPORT

**VOLVO
PENTA**

ERIK KRUEGER NORTHERN LIGHTS 8432-36526C - GENSET

Sample No: VPA051102

Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA051102	VPA041046	VPA048939	VPA022642
Sample Date	02 Apr 2024	07 Mar 2023	13 Apr 2022	14 Oct 2019
Machine Hours	0	360	260	192
Oil Hours	0	100	100	0
Oil Changed	Changed	Changed	Changed	Not Changd
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

Jefferson Beach Yacht Sales Inc

24400 Jefferson Ave.
SAINT CLAIR SHORES, MI
US 48080

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F:

OIL CONDITION

Visc @ 100°C	cSt	10.5	13.1	13.3	13.3
Base Number (BN)	mg KOH/g	5.7	10.2	10.7	---
Oxidation (PA)	%	27	55	63	48

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.2
Nitration (PA)	%	30	54	58	47
Sulfation (PA)	%	38	52	56	45
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	0.4	<1.0	<1.0	<1.0
Silicon	ppm	5	4	3	6
Sodium	ppm	2	2	2	5
Potassium	ppm	<1	<1	0	8

WEAR METALS

Iron	ppm	67	12	10	7
Copper	ppm	35	3	3	5
Lead	ppm	0	<1	<1	0
Tin	ppm	2	0	<1	0
Aluminum	ppm	4	2	2	2
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	60	59	62	44
Nickel	ppm	0	0	0	<1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	1025	1165	1148	1102
Magnesium	ppm	512	895	1017	860
Zinc	ppm	754	1243	1202	1097
Phosphorus	ppm	670	986	1078	894
Barium	ppm	0	0	0	0
Boron	ppm	140	16	6	3

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The iron level is abnormal. All other component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot: VP297371

Unique No: 10965789

Signed: Jonathan Hester

Report Date: 15 Apr 2024

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GRAPHS

