

OIL ANALYSIS REPORT



LEOR LANDA FISCHER PANDA 2000424 - GENSET

Sample No: VPA043891
Oil Type: SHELL ROTELLA T 15W40

SAMPLE INFORMATION

Sample Number	VPA043891	VPA043984	VPA043620	---
Sample Date	06 Dec 2023	04 Nov 2022	04 Nov 2021	---
Machine Hours	439	324	170	---
Oil Hours	439	324	170	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ATTENTION	NORMAL	NORMAL	---

Larry's Lighthouse Marina
 1250
 AQUEBOGUE, NY
 US 11931
 Contact: MAX FUHLBRUGGE
 info@lighthousemarina.com
 T: x
 F: x

OIL CONDITION

Visc @ 100°C	cSt	▲ 12.1	■ 13.4	■ 13.2	---
Base Number (BN)	mg KOH/g	■ 8.3	■ 9.3	---	---
Oxidation (PA)	%	59	85	65	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	■ 0.1	■ 0.1	■ 0.1	---
Nitration (PA)	%	53	74	54	---
Sulfation (PA)	%	52	65	53	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	■ 1.0	<1.0	<1.0	---
Silicon	ppm	■ 5	■ 5	■ 8	---
Sodium	ppm	■ 3	■ 2	■ 4	---
Potassium	ppm	■ 3	■ 8	■ 0	---

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All 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.

WEAR METALS

Iron	ppm	■ 14	■ 20	■ 26	---
Copper	ppm	■ 6	■ 19	■ 38	---
Lead	ppm	■ <1	■ 3	■ 6	---
Tin	ppm	■ <1	■ 2	■ 3	---
Aluminum	ppm	■ 6	■ 7	■ 6	---
Chromium	ppm	■ 1	■ 1	■ 3	---
Molybdenum	ppm	■ 64	■ 10	■ 68	---
Nickel	ppm	■ 0	■ 0	■ 0	---
Titanium	ppm	0	0	0	---
Silver	ppm	■ 0	■ 0	<1	---
Manganese	ppm	■ <1	■ <1	■ <1	---
Vanadium	ppm	0	0	0	---

ADDITIVES

Calcium	ppm	■ 2626	■ 2473	■ 2138	---
Magnesium	ppm	■ 26	62	■ 363	---
Zinc	ppm	■ 1262	■ 1284	■ 1067	---
Phosphorus	ppm	■ 996	■ 1020	■ 954	---
Barium	ppm	■ 0	■ 0	■ 0	---
Boron	ppm	■ 89	■ 151	■ 52	---

Depot: VP610438
Unique No: 10792797
Signed: Don Baldrige
Report Date: 23 Dec 2023

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**VOLVO
PENTA**

GRAPHS

