

OIL ANALYSIS REPORT

VOLVO PENTA

DOUG YANMAR 51574 - STARBOARD DIESEL ENGINE

Sample No: VPA046907

Oil Type: DIESEL ENGINE OIL SAE 40

SAMPLE INFORMATION

Sample Number	VPA046907	VPA043051	---	---
Sample Date	30 Oct 2023	08 Dec 2022	---	---
Machine Hours	0	2721	---	---
Oil Hours	0	0	---	---
Oil Changed	N/A	N/A	---	---
Sample Status	NORMAL	NORMAL	---	---

Harry's Marine Service LLC

1141 N. Citrus St.

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US 92887

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F:

OIL CONDITION

Visc @ 100°C	cSt	█ 14.2	█ 14.1	---	---
Base Number (BN)	mg KOH/g	█ 8.1	█ 9.6	---	---
Oxidation (PA)	%	65	71	---	---

CONTAMINATION

Soot %	%	█ 0.3	█ 0.3	---	---
Nitration (PA)	%	57	63	---	---
Sulfation (PA)	%	55	61	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	█ 2	█ 5	---	---
Sodium	ppm	█ 3	█ 0	---	---
Potassium	ppm	█ 7	█ 3	---	---

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 acceptable for the time in service.

WEAR METALS

Iron	ppm	█ 4	█ 5	---	---
Copper	ppm	█ 3	█ 2	---	---
Lead	ppm	█ 0	█ 2	---	---
Tin	ppm	█ 0	█ 0	---	---
Aluminum	ppm	█ 2	█ 2	---	---
Chromium	ppm	█ <1	█ <1	---	---
Molybdenum	ppm	█ <1	█ 15	---	---
Nickel	ppm	█ <1	█ <1	---	---
Titanium	ppm	█ 0	█ 0	---	---
Silver	ppm	█ 0	█ 0	---	---
Manganese	ppm	█ <1	<1	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	█ 2179	█ 2252	---	---
Magnesium	ppm	█ 34	█ 118	---	---
Zinc	ppm	█ 1267	█ 1255	---	---
Phosphorus	ppm	█ 1018	█ 1017	---	---
Barium	ppm	█ 0	█ 0	---	---
Boron	ppm	█ 177	█ 171	---	---

Depot: VP867279

Unique No: 10722506

Signed: Sean Felton

Report Date: 01 Nov 2023

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GRAPHS

