

OIL ANALYSIS REPORT



DISCOVERY VOLVO PENTA 70112014593 - PORT DIESEL ENGINE

Sample No: VPA055070

Oil Type: DIESEL ENGINE OIL SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA055070	VPA035922	---	---
Sample Date	11 Jun 2024	18 Jan 2022	---	---
Machine Hours	0	0	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	N/A	---	---
Sample Status	ATTENTION	ABNORMAL	---	---

Outstanding Marine

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US 21635
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T:
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OIL CONDITION

Visc @ 100°C	cSt	● 11.4	11.1	---	---
Base Number (BN)	mg KOH/g	■ 9.4	■ 10.4	---	---
Oxidation (PA)	%	53	59	---	---

CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	■ 0.2	■ 0.1	---	---
Nitration (PA)	%	46	48	---	---
Sulfation (PA)	%	50	53	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	▲ 2.8	---	---
Silicon	ppm	■ 7	▲ 30	---	---
Sodium	ppm	■ 1	■ 3	---	---
Potassium	ppm	■ 2	■ 3	---	---

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. 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	■ 4	■ 8	---	---
Copper	ppm	■ 10	■ 33	---	---
Lead	ppm	■ 0	■ 1	---	---
Tin	ppm	■ <1	■ 2	---	---
Aluminum	ppm	■ 1	■ 2	---	---
Chromium	ppm	■ 0	■ 1	---	---
Molybdenum	ppm	■ 55	■ 58	---	---
Nickel	ppm	■ <1	■ <1	---	---
Titanium	ppm	■ 0	■ 0	---	---
Silver	ppm	■ 0	■ <1	---	---
Manganese	ppm	■ <1	2	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	■ 1076	■ 1068	---	---
Magnesium	ppm	■ 964	■ 977	---	---
Zinc	ppm	■ 1256	■ 1138	---	---
Phosphorus	ppm	■ 1055	■ 1065	---	---
Barium	ppm	■ 0	■ <1	---	---
Boron	ppm	■ 13	■ 8	---	---

Depot: VP153685
Unique No: 11111716
Signed: Jonathan Hester
Report Date: 08 Jul 2024

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VOLVO PENTA

GRAPHS

