

OIL ANALYSIS REPORT

**VOLVO
PENTA**

BEN HAMMOND HAMMOND VOLVO PENTA 2003018774 - CENTER DIESEL ENGINE

Sample No: VPA046490

Oil Type: SHELL ROTELLA T 15W40

SAMPLE INFORMATION

Sample Number	VPA046490	---	---	---
Sample Date	05 Sep 2023	---	---	---
Machine Hours	196	---	---	---
Oil Hours	50	---	---	---
Oil Changed	Not Changd	---	---	---
Sample Status	SEVERE	---	---	---

OIL CONDITION

Visc @ 100°C	cSt	█ 14.3	---	---	---
Base Number (BN)	mg KOH/g	█ 8.1	---	---	---
Oxidation (PA)	%	61	---	---	---

CONTAMINATION

Soot %	%	█ 0.1	---	---	---
Nitration (PA)	%	51	---	---	---
Sulfation (PA)	%	53	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 14	---	---	---
Sodium	ppm	█ 5	---	---	---
Potassium	ppm	█ 13	---	---	---

WEAR METALS

Iron	ppm	█ 166	---	---	---
Copper	ppm	█ 20	---	---	---
Lead	ppm	█ 2	---	---	---
Tin	ppm	█ 2	---	---	---
Aluminum	ppm	█ 35	---	---	---
Chromium	ppm	█ 8	---	---	---
Molybdenum	ppm	█ 3	---	---	---
Nickel	ppm	█ 4	---	---	---
Titanium	ppm	█ <1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 3	---	---	---
Vanadium	ppm	< 1	---	---	---

ADDITIVES

Calcium	ppm	█ 2206	---	---	---
Magnesium	ppm	█ 31	---	---	---
Zinc	ppm	█ 1223	---	---	---
Phosphorus	ppm	█ 957	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 175	---	---	---

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Diagnosis

We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Cylinder, crank, or cam shaft wear is indicated. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: VP619387
Unique No: 10642225
Signed: Jonathan Hester
Report Date: 13 Sep 2023

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GRAPHS

