

OIL ANALYSIS REPORT



LOU BRITO 205604 VOLVO PENTA 2003011980 - STARBOARD DIESEL ENGINE

Sample No: VPA046359
Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA046359	VPA046355	---	---
Sample Date	20 May 2024	10 Apr 2023	---	---
Machine Hours	1396	1407	---	---
Oil Hours	41	50	---	---
Oil Changed	Not Changd	Changed	---	---
Sample Status	SEVERE	SEVERE	---	---

OIL CONDITION

Visc @ 100°C	cSt	14.1	14.5	---	---
Base Number (BN)	mg KOH/g	10.5	6.5	---	---
Oxidation (PA)	%	61	67	---	---

CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.1	0.2	---	---
Nitration (PA)	%	60	68	---	---
Sulfation (PA)	%	51	54	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	31	38	---	---
Sodium	ppm	35	40	---	---
Potassium	ppm	6	5	---	---

WEAR METALS

Iron	ppm	328	412	---	---
Copper	ppm	60	77	---	---
Lead	ppm	4	2	---	---
Tin	ppm	3	1	---	---
Aluminum	ppm	92	120	---	---
Chromium	ppm	21	27	---	---
Molybdenum	ppm	80	82	---	---
Nickel	ppm	4	4	---	---
Titanium	ppm	5	6	---	---
Silver	ppm	<1	0	---	---
Manganese	ppm	3	4	---	---
Vanadium	ppm	<1	<1	---	---

ADDITIVES

Calcium	ppm	1410	1492	---	---
Magnesium	ppm	824	649	---	---
Zinc	ppm	1366	1338	---	---
Phosphorus	ppm	1148	1061	---	---
Barium	ppm	0	0	---	---
Boron	ppm	128	183	---	---

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Diagnosis

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Piston, ring and cylinder wear is indicated. Elemental level of silicon (Si) above normal indicating ingress of seal material. 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: VP152133
Unique No: 11046634
Signed: Sean Felton
Report Date: 29 May 2024

OIL ANALYSIS REPORT

GRAPHS

