

OIL ANALYSIS REPORT



ESPIEITU TAP5333792 VOLVO PENTA D8 7008436532 - STARBOARD DIESEL ENGINE

Sample No: VPA045739

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMATION

Sample Number	VPA045739	VPA039656	VPA023020	---
Sample Date	11 Jan 2024	07 Oct 2021	19 Sep 2018	---
Machine Hours	1196	482	208	---
Oil Hours	1196	0	208	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

FDDA TAMPA

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OIL CONDITION

Visc @ 100°C	cSt	█ 13.6	█ 13.9	█ 14.45	---
Base Number (BN)	mg KOH/g	█ 9.2	---	---	---
Oxidation (PA)	%	64	62	43	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	█ 0.9	█ 0.9	█ 1.5	---
Nitration (PA)	%	70	63	58	---
Sulfation (PA)	%	58	59	55	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 11	█ 13	█ 32	---
Sodium	ppm	█ 7	█ 20	█ 3	---
Potassium	ppm	█ 2	█ 0	█ <1	---

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	█ 28	█ 71	█ 43	---
Copper	ppm	█ 49	█ 44	█ 46	---
Lead	ppm	█ <1	█ 0	█ 0	---
Tin	ppm	█ <1	█ 0	█ 0	---
Aluminum	ppm	█ 2	█ 19	█ 4	---
Chromium	ppm	█ 4	█ 3	█ 4	---
Molybdenum	ppm	█ 66	█ 62	█ 36	---
Nickel	ppm	█ 4	█ 3	█ 3	---
Titanium	ppm	<1	<1	<1	---
Silver	ppm	█ 2	█ 1	█ <1	---
Manganese	ppm	█ <1	█ <1	█ 1	---
Vanadium	ppm	<1	0	0	---

ADDITIVES

Calcium	ppm	█ 1160	█ 1182	█ 3521	---
Magnesium	ppm	█ 1117	█ 1009	█ 53	---
Zinc	ppm	█ 1459	█ 1241	█ 1136	---
Phosphorus	ppm	█ 1193	█ 991	█ 919	---
Barium	ppm	█ 0	█ 0	█ 0	---
Boron	ppm	█ 1	█ 9	█ 286	---

Depot: VP208641
Unique No: 10836646
Signed: Sean Felton
Report Date: 22 Jan 2024

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VOLVO PENTA

GRAPHS

