

OIL ANALYSIS REPORT



MARK GUILMAIN TAP551928 CUMMINS B210878814 - STARBOARD GENSET

Sample No: VPA045616

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

SAMPLE INFORMATION

Sample Number	VPA045616	VPA040589	---	---
Sample Date	09 Apr 2024	05 Jun 2023	---	---
Machine Hours	3938	295	---	---
Oil Hours	3938	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	MARGINAL	NORMAL	---	---

FDDA TAMPA

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US
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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.4	■ 13.0	---	---
Base Number (BN)	mg KOH/g	■ 9.7	■ 8.2	---	---
Oxidation (PA)	%	58	63	---	---

CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	■ 0.1	■ 0.1	---	---
Nitration (PA)	%	48	46	---	---
Sulfation (PA)	%	51	56	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	▲ 3.2	<1.0	---	---
Silicon	ppm	■ 5	■ 6	---	---
Sodium	ppm	■ 2	■ 2	---	---
Potassium	ppm	■ 1	■ 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. Light fuel dilution occurring. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

WEAR METALS

Iron	ppm	■ 6	■ 4	---	---
Copper	ppm	■ 2	■ 1	---	---
Lead	ppm	■ <1	■ 0	---	---
Tin	ppm	■ <1	■ 1	---	---
Aluminum	ppm	■ 2	■ 2	---	---
Chromium	ppm	■ <1	■ <1	---	---
Molybdenum	ppm	■ 63	■ 75	---	---
Nickel	ppm	■ <1	■ <1	---	---
Titanium	ppm	<1	■ 0	---	---
Silver	ppm	■ 0	■ 0	---	---
Manganese	ppm	■ <1	■ <1	---	---
Vanadium	ppm	<1	<1	---	---

ADDITIVES

Calcium	ppm	■ 1164	■ 1529	---	---
Magnesium	ppm	■ 857	■ 450	---	---
Zinc	ppm	■ 1191	■ 1359	---	---
Phosphorus	ppm	■ 1024	■ 1079	---	---
Barium	ppm	■ 2	■ 0	---	---
Boron	ppm	■ 86	■ 344	---	---

Depot: VP208641
Unique No: 10979828
Signed: Jonathan Hester
Report Date: 22 Apr 2024

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**VOLVO
PENTA**

GRAPHS

