

OIL ANALYSIS REPORT



GORDON FERGUSON DILLON VOLVO PENTA 7008517892 - STARBOARD DIESEL ENGINE

Sample No: VPA060089
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMATION

Sample Number	VPA060089	VPA035136	---	---
Sample Date	14 Feb 2024	01 Nov 2021	---	---
Machine Hours	443	146	---	---
Oil Hours	251	0	---	---
Oil Changed	Changed	N/A	---	---
Sample Status	NORMAL	ATTENTION	---	---

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OIL CONDITION

Visc @ 100°C	cSt	13.7	▲ 12.1	---	---
Base Number (BN)	mg KOH/g	9.3	---	---	---
Oxidation (PA)	%	55	60	---	---

CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.7	0.6	---	---
Nitration (PA)	%	54	55	---	---
Sulfation (PA)	%	54	55	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	0.2	---	---
Silicon	ppm	11	26	---	---
Sodium	ppm	2	0	---	---
Potassium	ppm	<1	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	19	21	---	---
Copper	ppm	69	62	---	---
Lead	ppm	0	<1	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	2	2	---	---
Chromium	ppm	<1	2	---	---
Molybdenum	ppm	59	62	---	---
Nickel	ppm	3	3	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	<1	1	---	---
Manganese	ppm	<1	2	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	1032	1369	---	---
Magnesium	ppm	937	896	---	---
Zinc	ppm	1220	1219	---	---
Phosphorus	ppm	1003	1109	---	---
Barium	ppm	0	0	---	---
Boron	ppm	5	5	---	---

Depot: VP794951
Unique No: 10884400
Signed: Don Baldrige
Report Date: 19 Feb 2024

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**VOLVO
PENTA**

GRAPHS

