

OIL ANALYSIS REPORT

VOLVO PENTA

VOLVO PENTA A472923 - STARBOARD DIESEL ENGINE

Sample No: VPA058318

Oil Type: CHEVRON DELO 400 MULTIGRADE 15W40

SAMPLE INFORMATION

Sample Number	VPA058318	---	---	---
Sample Date	27 Mar 2024	---	---	---
Machine Hours	577	---	---	---
Oil Hours	80	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

North Harbor Diesel Inc
720 30Th Street
ANACORTES, WA
US 98221
Contact: ED MCFARLIN
ed@northharbordiesel.com
T:
F:

OIL CONDITION

Visc @ 100°C	cSt	█ 14.2	---	---	---
Base Number (BN)	mg KOH/g	█ 8.5	---	---	---
Oxidation (PA)	%	55	---	---	---

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.2	---	---	---
Nitration (PA)	%	66	---	---	---
Sulfation (PA)	%	50	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 5	---	---	---
Sodium	ppm	█ 3	---	---	---
Potassium	ppm	█ 3	---	---	---

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 suitable for further service.

WEAR METALS

Iron	ppm	█ 17	---	---	---
Copper	ppm	█ 5	---	---	---
Lead	ppm	█ 3	---	---	---
Tin	ppm	█ < 1	---	---	---
Aluminum	ppm	█ 14	---	---	---
Chromium	ppm	█ 1	---	---	---
Molybdenum	ppm	0	---	---	---
Nickel	ppm	█ < 1	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ < 1	---	---	---
Vanadium	ppm	0	---	---	---

Diagnosis

ADDITIVES

Calcium	ppm	█ 1404	---	---	---
Magnesium	ppm	█ 656	---	---	---
Zinc	ppm	█ 851	---	---	---
Phosphorus	ppm	█ 744	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 103	---	---	---

Depot: VP179089
Unique No: 10956487
Signed: Doug Bogart
Report Date: 04 Apr 2024

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GRAPHS

