

OIL ANALYSIS REPORT

VOLVO PENTA

MURFEE LEE MURFEE VOLVO PENTA 2004016316 - STARBOARD DIESEL ENGINE

Sample No: VPA041214

Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA041214	VPA019910	---	---
Sample Date	05 Sep 2023	18 Aug 2019	---	---
Machine Hours	777	636	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

Suncoast Diesel Marine Inc.

610 Mount Vernan St

OLDSMAR, FL

US 34677

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OIL CONDITION

Visc @ 100°C	cSt	█ 13.5	█ 13.7	---	---
Base Number (BN)	mg KOH/g	█ 9.7	---	---	---
Oxidation (PA)	%	72	58	---	---

CONTAMINATION

Soot %	%	█ 0.2	█ 0.2	---	---
Nitration (PA)	%	76	74	---	---
Sulfation (PA)	%	60	51	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	█ 4	█ 5	---	---
Sodium	ppm	█ 2	█ 5	---	---
Potassium	ppm	█ 2	█ 4	---	---

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	█ 10	█ 12	---	---
Copper	ppm	█ 22	█ 28	---	---
Lead	ppm	█ 34	█ 43	---	---
Tin	ppm	█ 1	█ 0	---	---
Aluminum	ppm	█ 11	█ 3	---	---
Chromium	ppm	█ 2	█ 1	---	---
Molybdenum	ppm	█ 64	█ 62	---	---
Nickel	ppm	█ 2	█ 1	---	---
Titanium	ppm	█ 0	█ <1	---	---
Silver	ppm	█ 0	█ 0	---	---
Manganese	ppm	█ <1	█ <1	---	---
Vanadium	ppm	<1	0	---	---

ADDITIVES

Calcium	ppm	█ 1177	█ 1229	---	---
Magnesium	ppm	1043	█ 1034	---	---
Zinc	ppm	█ 1378	█ 1208	---	---
Phosphorus	ppm	█ 1092	█ 1000	---	---
Barium	ppm	█ 0	█ 0	---	---
Boron	ppm	█ 0	█ 4	---	---

Depot: VP945077

Unique No: 10643879

Signed: Don Baldrige

Report Date: 14 Sep 2023

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GRAPHS

