

OIL ANALYSIS REPORT



HOFFMANN WATERSPORTS BC/02 VOLVO PENTA A446687 - CENTER DIESEL ENGINE

Sample No: VPA035552
Oil Type: PROVIDENCE SYNTHETIC 15W40

SAMPLE INFORMATION

Sample Number	VPA035552	VPA035542	VPA035573	---
Sample Date	15 Mar 2024	28 Feb 2024	21 Jul 2023	---
Machine Hours	6348	6282	5885	---
Oil Hours	66	105	110	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	ABNORMAL	NORMAL	---

Marco Island Ski & Water Sport
 1392
 MARCO ISLAND, FL
 US 34146
 Contact: Bradley Cotten
 bradc@marcoislandwatersports.com
 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	█ 13.7	█ 13.7	█ 14.9	---
Base Number (BN)	mg KOH/g	█ 9.9	█ 9.7	█ 9.8	---
Oxidation (PA)	%	57	57	56	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	█ 0.1	█ 0.1	█ 0.1	---
Nitration (PA)	%	48	56	46	---
Sulfation (PA)	%	50	50	49	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 4	█ 13	█ 3	---
Sodium	ppm	█ <1	█ 1	█ 2	---
Potassium	ppm	█ 5	▲ 45	█ 2	---

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	█ 2	█ 4	█ 2	---
Copper	ppm	█ 2	█ 8	█ 4	---
Lead	ppm	█ 0	█ 0	█ <1	---
Tin	ppm	█ 0	█ <1	█ 0	---
Aluminum	ppm	█ 0	█ <1	█ 2	---
Chromium	ppm	█ 0	█ 0	█ <1	---
Molybdenum	ppm	█ 57	█ 57	█ 55	---
Nickel	ppm	█ 0	█ 0	█ 0	---
Titanium	ppm	█ 0	█ 0	█ 0	---
Silver	ppm	█ 0	█ 0	█ 0	---
Manganese	ppm	0	0	0	---
Vanadium	ppm	0	0	0	---

ADDITIVES

Calcium	ppm	█ 1097	█ 1058	█ 1035	---
Magnesium	ppm	█ 1030	█ 963	█ 875	---
Zinc	ppm	█ 1258	█ 1233	█ 1152	---
Phosphorus	ppm	█ 1086	█ 1083	█ 941	---
Barium	ppm	█ 0	█ 0	█ 0	---
Boron	ppm	█ 2	█ 0	█ <1	---

Depot: VP153258
Unique No: 10936195
Signed: Don Baldrige
Report Date: 21 Mar 2024

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VOLVO PENTA

GRAPHS

