

OIL ANALYSIS REPORT



HOFFMANN WATERSPORTS VOLVO PENTA A421672 - CENTER DIESEL ENGINE

Sample No: VPA035569
Oil Type: PROVIDENCE SYNTHETIC 15W40

SAMPLE INFORMATION

Sample Number	VPA035569	VPA035571	---	---
Sample Date	27 Jul 2023	23 Jul 2023	---	---
Machine Hours	4316	4301	---	---
Oil Hours	15	80	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	NORMAL	---	---

Marco Island Ski & Water Sport
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 MARCO ISLAND, FL
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 Contact: Bradley Cotten
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 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	15.0	15.0	---	---
Base Number (BN)	mg KOH/g	12.5	9.4	---	---
Oxidation (PA)	%	57	55	---	---

CONTAMINATION

Soot %	%	0.1	0.1	---	---
Nitration (PA)	%	60	47	---	---
Sulfation (PA)	%	45	49	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	4	3	---	---
Sodium	ppm	2	1	---	---
Potassium	ppm	48	2	---	---

Diagnosis

We advise that you check for possible coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

WEAR METALS

Iron	ppm	4	3	---	---
Copper	ppm	4	3	---	---
Lead	ppm	<1	<1	---	---
Tin	ppm	<1	0	---	---
Aluminum	ppm	4	3	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	54	56	---	---
Nickel	ppm	<1	0	---	---
Titanium	ppm	0	<1	---	---
Silver	ppm	<1	0	---	---
Manganese	ppm	0	0	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	1062	1053	---	---
Magnesium	ppm	854	877	---	---
Zinc	ppm	1148	1156	---	---
Phosphorus	ppm	941	949	---	---
Barium	ppm	0	0	---	---
Boron	ppm	16	1	---	---

Depot: VP153258
Unique No: 10578439
Signed: Jonathan Hester
Report Date: 02 Aug 2023

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VOLVO PENTA

GRAPHS

