

OIL ANALYSIS REPORT



DAVE ACHESON LYCOMING DAVE ACHESON - AIR BOAT (S/N NOT GIVEN) - PISTON AIRCRAFT ENGINE

Sample No: VPA058082
Oil Type: PHILLIPS 66 VICTORY 100 AW SAE 50

SAMPLE INFORMATION

Sample Number	VPA058082	---	---	---
Sample Date	21 Feb 2024	---	---	---
Machine Hours	48	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	SEVERE	---	---	---

OIL CONDITION

Visc @ 100°C	cSt	21.8	---	---	---
Base Number (BN)	mg KOH/g	4.6	---	---	---
Oxidation (PA)	%	43	---	---	---

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	0.1	---	---	---
Nitration (PA)	%	36	---	---	---
Sulfation (PA)	%	53	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	64	---	---	---
Sodium	ppm	3	---	---	---
Potassium	ppm	4	---	---	---

WEAR METALS

Iron	ppm	136	---	---	---
Copper	ppm	22	---	---	---
Lead	ppm	1598	---	---	---
Tin	ppm	3	---	---	---
Aluminum	ppm	31	---	---	---
Chromium	ppm	207	---	---	---
Molybdenum	ppm	0	---	---	---
Nickel	ppm	3	---	---	---
Titanium	ppm	2	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	6	---	---	---
Vanadium	ppm	<1	---	---	---

ADDITIVES

Calcium	ppm	1	---	---	---
Magnesium	ppm	9	---	---	---
Zinc	ppm	<1	---	---	---
Phosphorus	ppm	1453	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	0	---	---	---

MELBOURNE MARINE DIESEL

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 info@melbournemarinediesel.com
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Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We advise that you check the engine magneto timing. We advise that you perform a compression test, and a borescope exam. We recommend that you change the oil at the next available stoppage or outage. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Provided compression test checks O.K., resample in 20 to 25 hours to monitor. Chromium ppm levels are severe. Iron ppm levels are abnormal. Aluminum ppm levels are noted. Cylinder wear is indicated. Ring wear is indicated. A cylinder ring may be cracked or broken. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: VP1222400
Unique No: 10898862
Signed: Doug Bogart
Report Date: 29 Feb 2024

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VOLVO PENTA

GRAPHS

