

OIL ANALYSIS REPORT



MURPHY ZEUS/MERCURY ZEUS/MERCURY - INBOARD (S/N NOT GIVEN) - PORT GEARBOX

Sample No: VPA058087
Oil Type: NOT GIVEN

SAMPLE INFORMATION

Sample Number	VPA058087	VPA043390	VPA040360	---
Sample Date	20 Dec 2023	03 Aug 2022	26 Jul 2022	---
Machine Hours	0	0	0	---
Oil Hours	0	0	0	---
Oil Changed	N/A	N/A	N/A	---
Sample Status	SEVERE	NORMAL	SEVERE	---

Walstrom Marine - 767948

501 Bay Street
 HARBOR SPRINGS, MI
 US 49740
 Contact: MARK LEWIS
 mlewis@walstrom.com

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 F:

OIL CONDITION

Visc @ 40°C	cSt	38.2	162	39.1	---
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CONTAMINATION

Water	%	NEG	NEG	NEG	---
Silicon	ppm	10	<1	6	---
Sodium	ppm	0	0	1	---
Potassium	ppm	5	0	1	---

Diagnosis

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The copper level is severe. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

WEAR METALS

PQ		21	20	43	---
Iron	ppm	25	14	47	---
Copper	ppm	727	21	614	---
Lead	ppm	21	<1	18	---
Tin	ppm	0	<1	<1	---
Aluminum	ppm	3	1	2	---
Chromium	ppm	<1	0	<1	---
Molybdenum	ppm	49	47	49	---
Nickel	ppm	0	<1	0	---
Titanium	ppm	<1	0	0	---
Silver	ppm	0	<1	0	---
Manganese	ppm	<1	<1	<1	---
Vanadium	ppm	0	0	0	---

ADDITIVES

Calcium	ppm	2534	81	2539	---
Magnesium	ppm	16	0	17	---
Zinc	ppm	837	2	781	---
Phosphorus	ppm	740	276	703	---
Barium	ppm	0	0	2	---
Boron	ppm	241	2	220	---

Depot: VP154879
Unique No: 10802999
Signed: Jonathan Hester
Report Date: 26 Dec 2023

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**VOLVO
PENTA**

GRAPHS

