

OIL ANALYSIS REPORT

**VOLVO
PENTA**

CRAIG BYAR MATTHEW DOW MERCURY MARINE OM963942 - STARBOARD IPS

Sample No: VPA060588

Oil Type: MERCURY MARINE SAE 90 HIGH PRO

SAMPLE INFORMATION

Sample Number	VPA060588	VPA042492	VPA035295	VPA030295
Sample Date	08 Nov 2023	25 Jan 2023	22 Mar 2022	21 Feb 2020
Machine Hours	827	776	30	579
Oil Hours	51	62	30	134
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	SEVERE	SEVERE	ATTENTION

Mobile Marine Services Inc
01032 Advance Rd South
EAST JORDAN, MI
US 49727
Contact: Duane Kujat
mobilemarine@twin-valley.net
T: Phone
F:

OIL CONDITION

Visc @ 40°C	cSt	161	107	102	100.9
-------------	-----	------------	-----	-----	-------

CONTAMINATION

Water	%	NEG	1.53	1.03	0.291
Silicon	ppm	<1	2	3	2
Sodium	ppm	0	0	0	2
Potassium	ppm	1	<1	0	5

WEAR METALS

PQ		40	37	40	67
Iron	ppm	39	196	256	326
Copper	ppm	6	4	5	9
Lead	ppm	1	<1	0	0
Tin	ppm	0	2	<1	0
Aluminum	ppm	<1	3	4	4
Chromium	ppm	0	2	2	3
Molybdenum	ppm	38	<1	1	8
Nickel	ppm	<1	2	1	2
Titanium	ppm	0	<1	2	0
Silver	ppm	0	0	<1	<1
Manganese	ppm	0	2	3	3
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	16	15	12	15
Magnesium	ppm	<1	<1	<1	1
Zinc	ppm	5	16	15	19
Phosphorus	ppm	265	1240	1330	1231
Barium	ppm	7	0	0	0
Boron	ppm	<1	277	204	291

Diagnosis

The oil change at the time of sampling has been noted. 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 condition of the oil is acceptable for the time in service.

Depot: VP443016
Unique No: 10742959
Signed: Angela Borella
Report Date: 17 Nov 2023

OIL ANALYSIS REPORT

**VOLVO
PENTA**

GRAPHS

