

OIL ANALYSIS REPORT

VOLVO PENTA

ENCORE I (S/N 3940023264) - STARBOARD IPS

Sample No: VPA045980

Oil Type: VOLVO PENTA GL-5 SAE 75W90

SAMPLE INFORMATION

Sample Number	VPA045980	VPA039848	VPA040154	VPA038484
Sample Date	17 Jun 2023	23 Feb 2023	07 Jul 2022	10 Sep 2021
Machine Hours	5717	0	4270	3927
Oil Hours	470	400	350	600
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ATTENTION	ATTENTION	ATTENTION

BAY STATE CRUISE COMPANY
200 SEAPORT BLVD, SUITE 50 LOWER LEVEL
BOSTON, MA
US 02210
Contact: CHRISTINE HOOLEY
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F:

OIL CONDITION

Visc @ 40°C	cSt	■ 102	■ 102	■ 105	■ 106
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CONTAMINATION

Water	%	■ 0.141	NEG	NEG	NEG
Silicon	ppm	■ 16	10	17	15
Sodium	ppm	■ 21	■ 14	■ 41	■ 33
Potassium	ppm	■ 2	■ <1	■ 2	■ 0

WEAR METALS

PQ		■ 14	■ 14	■ 13	■ 20
Iron	ppm	▲ 306	▲ 229	▲ 300	▲ 326
Copper	ppm	■ 14	■ 5	■ 12	■ 21
Lead	ppm	0	0	<1	<1
Tin	ppm	0	0	0	0
Aluminum	ppm	9	6	8	■ 13
Chromium	ppm	■ 2	■ 1	■ 2	■ 3
Molybdenum	ppm	■ 0	■ 0	■ <1	■ <1
Nickel	ppm	■ 3	■ 2	■ 0	■ 3
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	■ 2	■ 2	■ 4	■ 6
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	▲ 2	■ 16	■ 3	■ 8
Magnesium	ppm	▲ 3	6	■ 6	■ 6
Zinc	ppm	■ 45	■ 56	■ 44	■ 104
Phosphorus	ppm	■ 1436	■ 1368	■ 1365	■ 1296
Barium	ppm	■ 0	■ 0	■ 2	■ 0
Boron	ppm	■ 278	■ 271	373	■ 353

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Gear wear is indicated. Free water present. The water content is negligible. The condition of the oil is acceptable for the time in service.

Depot: VPBAYBOS
Unique No: 10885369
Signed: Sean Felton
Report Date: 20 Feb 2024

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GRAPHS

