

OIL ANALYSIS REPORT



ENCORE II (S/N 3940024412) - STARBOARD IPS

Sample No: VPA042025
Oil Type: GEAR OIL SAE 75W90

SAMPLE INFORMATION

Sample Number	VPA042025	VPA042023	VPA040148	VPA039356
Sample Date	15 Jun 2023	28 Feb 2023	09 Mar 2022	15 Sep 2021
Machine Hours	1750	5384	4500	4140
Oil Hours	0	400	600	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ABNORMAL	SEVERE

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

Visc @ 40°C	cSt	103	104	103	107
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CONTAMINATION

Water	%	NEG	NEG	0.530	1.21
Silicon	ppm	12	5	7	15
Sodium	ppm	2	6	5	39
Potassium	ppm	1	<1	0	3

Diagnosis

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.

WEAR METALS

PQ		15	14	15	23
Iron	ppm	19	29	25	272
Copper	ppm	6	2	4	13
Lead	ppm	<1	0	0	<1
Tin	ppm	<1	0	<1	<1
Aluminum	ppm	1	0	<1	18
Chromium	ppm	<1	0	<1	3
Molybdenum	ppm	<1	0	<1	<1
Nickel	ppm	1	0	<1	4
Titanium	ppm	<1	0	0	0
Silver	ppm	<1	0	<1	<1
Manganese	ppm	<1	<1	3	4
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	0	0	0	0
Magnesium	ppm	1	4	<1	6
Zinc	ppm	3	4	3	102
Phosphorus	ppm	1211	1383	1382	1188
Barium	ppm	0	0	0	0
Boron	ppm	315	298	321	225

Depot: VPBAYBOS
Unique No: 10885358
Signed: Sean Felton
Report Date: 20 Feb 2024

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VOLVO PENTA

GRAPHS

