

# OIL ANALYSIS REPORT



## NEWT MARINE ZF 20360341 - INBOARD - PORT GEARBOX

**Sample No:** VPA051817  
**Oil Type:** VOLVO VDS-4.5 Premium Motor Oil 15W40

### SAMPLE INFORMATION

Sample Number	VPA051817	VPA038779	VPA038814	VPA038822
Sample Date	12 May 2024	04 Oct 2022	22 Jul 2022	14 Apr 2022
Machine Hours	3190	1980	1737	1181
Oil Hours	0	688	600	1181
Oil Changed	Changed	Not Changd	Not Changd	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

**NEWT MARINE**  
 5 JONES ST  
 DUBUQUE, IA  
 US 52001  
 Contact: DON LEIK  
 service@newtmarine.com  
 T:  
 F:

### OIL CONDITION

Visc @ 40°C	cSt	78.4	73.0	73.8	66.6
-------------	-----	------	------	------	------

### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	6	6	7	9
Sodium	ppm	3	0	4	11
Potassium	ppm	0	0	0	0

### 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		17	11	23	19
Iron	ppm	11	20	13	31
Copper	ppm	18	17	31	63
Lead	ppm	4	4	14	28
Tin	ppm	1	<1	1	4
Aluminum	ppm	<1	1	0	1
Chromium	ppm	0	<1	0	<1
Molybdenum	ppm	60	55	58	59
Nickel	ppm	0	0	0	0
Titanium	ppm	0	<1	0	<1
Silver	ppm	0	0	<1	<1
Manganese	ppm	1	2	<1	<1
Vanadium	ppm	0	<1	0	0

### ADDITIVES

Calcium	ppm	1122	1133	1201	1326
Magnesium	ppm	988	932	868	847
Zinc	ppm	1258	1195	1171	1115
Phosphorus	ppm	1092	982	997	1050
Barium	ppm	0	0	<1	0
Boron	ppm	15	11	22	59

**Depot:** VP99298099  
**Unique No:** 11023560  
**Signed:** Don Baldrige  
**Report Date:** 15 May 2024

# OIL ANALYSIS REPORT

# VOLVO PENTA

## GRAPHS

