

OIL ANALYSIS REPORT



MAYEDA ENTERPRISE 7719825 VOLVO PENTA A244402 - STARBOARD DIESEL ENGINE

Sample No: VPA054297
Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

SAMPLE INFORMATION

Sample Number	VPA054297	VPA055478	VPA042064	VPA037795
Sample Date	03 Jun 2024	06 Jun 2023	13 Jul 2022	06 May 2021
Machine Hours	1291	1084	0	1004
Oil Hours	0	0	0	0
Oil Changed	Changed	N/A	N/A	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Pacific Power Group - VP981534
 7215 S 228th St
 Kent, WA
 US 98032
 Contact: PAT RYAN
 pryan@pacificpowergroup.com
 T: (253)520-5163
 F:

OIL CONDITION

Visc @ 100°C	cSt	13.5	13.0	13.5	13.7
Base Number (BN)	mg KOH/g	9.9	9.5	11.0	---
Oxidation (PA)	%	63	70	67	61

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.2	0.2	0.1
Nitration (PA)	%	63	63	67	50
Sulfation (PA)	%	55	58	58	56
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	7	6	10	9
Sodium	ppm	3	2	2	2
Potassium	ppm	4	2	2	2

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

WEAR METALS

Iron	ppm	35	13	87	19
Copper	ppm	3	2	5	2
Lead	ppm	<1	1	2	2
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	33	7	53	33
Chromium	ppm	3	<1	5	3
Molybdenum	ppm	59	60	62	60
Nickel	ppm	1	1	2	1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	1	<1	<1	<1
Vanadium	ppm	0	<1	<1	<1

ADDITIVES

Calcium	ppm	1097	1053	1095	1055
Magnesium	ppm	1003	953	977	968
Zinc	ppm	1256	1333	1307	1228
Phosphorus	ppm	1032	1081	1071	1068
Barium	ppm	0	0	0	0
Boron	ppm	0	3	3	5

Depot: VP99031103
Unique No: 11076887
Signed: Don Baldrige
Report Date: 17 Jun 2024

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VOLVO PENTA

GRAPHS

