

OIL ANALYSIS REPORT



BRIAN 7011446302 - STARBOARD DIESEL ENGINE

Sample No: VPA048503
Oil Type: SHELL ROTELLA T 15W40

SAMPLE INFORMATION

Sample Number	VPA048503	VPA045995	VPA045998	VPA034098
Sample Date	29 Feb 2024	03 Nov 2023	15 Aug 2023	13 Jan 2023
Machine Hours	9021	8504	8154	7014
Oil Hours	300	350	452	320
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

FURY KEY WEST
 313 MARGARET ST
 KEY WEST, FL
 US 33040
 Contact: MARCEL GELUK
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 T:
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OIL CONDITION

Visc @ 100°C	cSt	12.5	12.7	12.3	12.1
Base Number (BN)	mg KOH/g	8.7	9.2	9.2	9.8
Oxidation (PA)	%	65	64	60	57

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.4	0.3	0.4	0.3
Nitration (PA)	%	69	66	60	52
Sulfation (PA)	%	55	55	55	53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	4	3	3
Sodium	ppm	2	3	2	2
Potassium	ppm	1	0	<1	<1

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	5	<1	4	3
Copper	ppm	22	9	8	7
Lead	ppm	<1	0	<1	<1
Tin	ppm	<1	<1	<1	0
Aluminum	ppm	3	<1	1	0
Chromium	ppm	<1	0	<1	0
Molybdenum	ppm	52	50	58	54
Nickel	ppm	0	0	0	<1
Titanium	ppm	<1	<1	<1	0
Silver	ppm	0	0	<1	0
Manganese	ppm	0	<1	<1	0
Vanadium	ppm	0	<1	<1	0

ADDITIVES

Calcium	ppm	1455	1443	1211	986
Magnesium	ppm	543	590	870	832
Zinc	ppm	1162	1314	1233	1124
Phosphorus	ppm	1047	1033	1022	941
Barium	ppm	0	0	0	0
Boron	ppm	23	18	6	0

Depot: VPFURKEY
Unique No: 10916079
Signed: Don Baldrige
Report Date: 11 Mar 2024

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VOLVO PENTA

GRAPHS

