OIL ANALYSIS REPORT

3684/NAUTI DOG VOLVO PENTA 70112018783 - STARBOARD DIESEL ENGINE

Sample No: VPA049520

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

Sample Number		VPA049520	 	
Sample Date		14 Feb 2024	 	
Machine Hours		158	 	
Oil Hours		0	 	
Oil Changed		Changed	 	
Sample Status		MARGINAL	 	
OIL CONDITION				
Visc @ 100°C	cSt	11.2	 	
Base Number (BN)	mg KOH/g	8.3	 	
Oxidation (PA)	%	53	 	
CONTAMINATION				
Water	%	NEG	 	
Soot %	%	0.2	 	
Nitration (PA)	%	42	 	
Sulfation (PA)	%	50	 	
Glycol	%	NEG	 	
Fuel	%	▲ 2.3	 	
Silicon	ppm	37	 	
Sodium	ppm	2	 	
Potassium	ppm	3	 	
WEAR METALS		- 10		
Iron	ppm	1 9	 	
Copper	ppm	62	 	
Lead Tin	ppm	□ <1	 	
Aluminum	ppm	2	 	
Chromium	ppm	2	 	
	ppm	1	 	
Molybdenum Nickel	ppm	□ 42 □ <1	 	
Titanium	ppm	0	 	
Silver	ppm	□ <1	 	
Manganese	ppm	2	 	
Vanadium	ppm	0	 	
	ppm	•		
ADDITIVES				
Calcium	ppm	1419	 	
Magnesium	ppm	485	 	
Zinc	ppm	1149	 	
	ppm	957	 	
Phosphorus				
Phosphorus Barium Boron	ppm ppm	0 77	 	



GRAND BANKS

450 SW SALEM RD STUART, FL JS 34994 Contact: ROBERT ANTONA roberta@gbmarinegroup.com F: (609)384-5290

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.Metal levels are typical for a new component breaking in. Light fuel dilution occurring. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

 Depot:
 VP531377

 Unique No:
 10888858

 Signed:
 Jonathan Hester

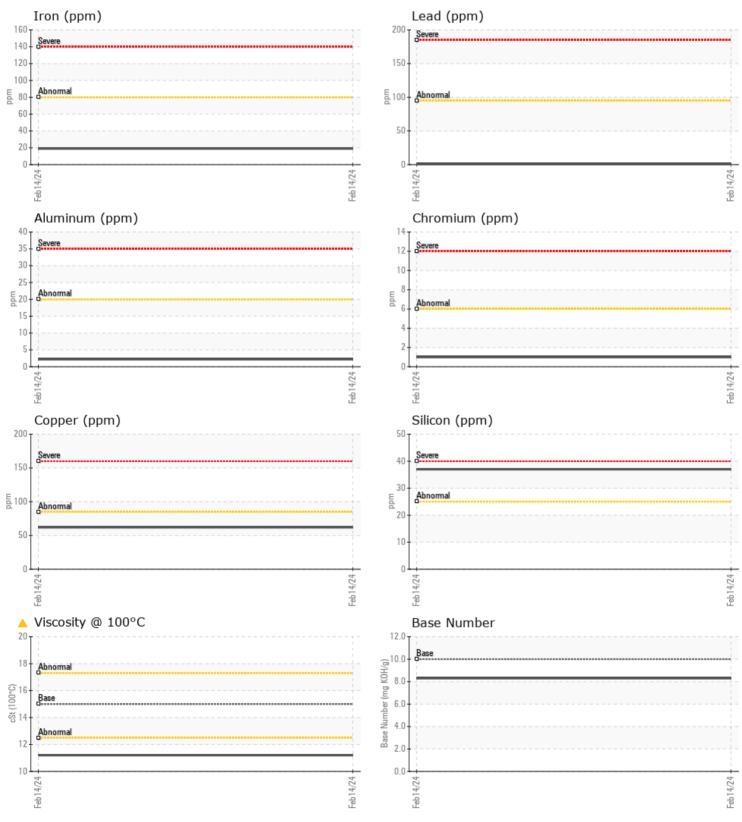
 Report Date:
 26 Feb 2024

Contact/Location: ROBERT ANTONA - VP531377

OIL ANALYSIS REPORT



GRAPHS



Report Id: VP531377 [WUSCAR] 06096005 (Generated: 02/26/2024 09:16:12) Rev: 1

Contact/Location: ROBERT ANTONA - VP531377