OIL ANALYSIS REPORT

HARMISH VOLVO PENTA VP038029 - STARBOARD DIESEL ENGINE

Sample No: VPA045905

Oil Type: DIESEL ENGINE OIL SAE 40

SAMPLE INFORMATION Sample Number VPA045905 05 Jul 2023 Sample Date Machine Hours 662 0 **Oil Hours** N/A Oil Changed NORMAL Sample Status **OIL CONDITION** Visc @ 100°C cSt 14.6 Base Number (BN) mg KOH/g 8.0 Oxidation (PA) % 49 CONTAMINATION Soot % % 0.1 % Nitration (PA) 60 Sulfation (PA) % 47 % NEG Glycol Fuel % <1.0 Silicon ppm 6 Sodium 2 ppm Potassium ppm 3 WEAR METALS - 1

Iron	ppm	2	 	
Copper	ppm	 <1	 	
Lead	ppm	■ <1	 	
Tin	ppm	0	 	
Aluminum	ppm	2	 	
Chromium	ppm	0	 	
Molybdenum	ppm	72	 	
Nickel	ppm	 <1	 	
Titanium	ppm	 <1	 	
Silver	ppm	0	 	
Manganese	ppm	■ <1	 	
Vanadium	ppm	<1	 	

ADDITIVES

Calcium	ppm	2081	 	
Magnesium	ppm	40	 	
Zinc	ppm	1118	 	
Phosphorus	ppm	912	 	
Barium	ppm	0	 	
Boron	ppm	70	 	

MAKO MARINE

117 HUDSON AVE FREEPORT, NY US 11520 Contact: PAUL FLOOD makomarine@optonline.net T: (516)378-7331 F: x:

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.

 Depot:
 VP1134331

 Unique No:
 10550562

 Signed:
 Don Baldridge

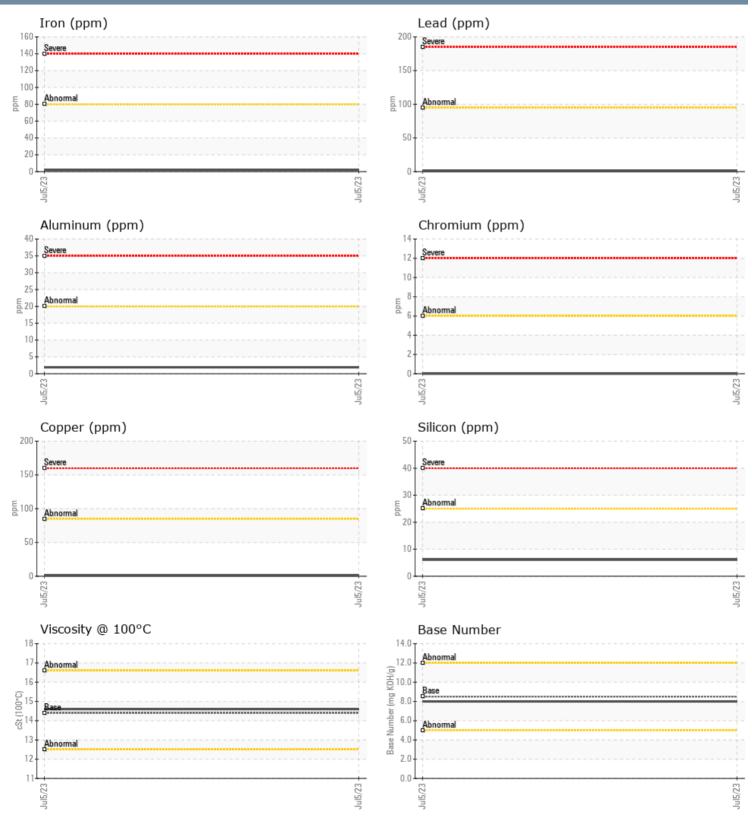
 Report Date:
 12 Jul 2023



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GRAPHS



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Contact/Location: PAUL FLOOD - VP1134331