

OIL ANALYSIS REPORT



RICHY R 590-18 CUMMINS 22348205 - STARBOARD DIESEL ENGINE

Sample No: VPA058409
Oil Type: DIESEL ENGINE OIL SAE 40

SAMPLE INFORMATION

Sample Number	VPA058409	---	---	---
Sample Date	17 Nov 2023	---	---	---
Machine Hours	338	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	NORMAL	---	---	---

Outstanding Marine
 PO Box 274
 GALENA, MD
 US 21635
 Contact: Ronda Bolinger
 rlwb@verizon.net
 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	█ 14.4	---	---	---
Base Number (BN)	mg KOH/g	█ 8.3	---	---	---
Oxidation (PA)	%	64	---	---	---

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.9	---	---	---
Nitration (PA)	%	58	---	---	---
Sulfation (PA)	%	59	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 3	---	---	---
Sodium	ppm	█ 2	---	---	---
Potassium	ppm	█ 4	---	---	---

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	█ 15	---	---	---
Copper	ppm	█ 29	---	---	---
Lead	ppm	█ 1	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	█ <1	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 9	---	---	---
Nickel	ppm	█ 2	---	---	---
Titanium	ppm	█ <1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ <1	---	---	---
Vanadium	ppm	<1	---	---	---

ADDITIVES

Calcium	ppm	█ 2101	---	---	---
Magnesium	ppm	█ 65	---	---	---
Zinc	ppm	█ 1213	---	---	---
Phosphorus	ppm	█ 1018	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 138	---	---	---

Depot: VP153685
Unique No: 10764012
Signed: Don Baldrige
Report Date: 01 Dec 2023

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**VOLVO
PENTA**

GRAPHS

