



CONSTRUCTION EQUIPMENT

D12790 PAYNE & DOLAN VOLVO L220H 3471 - DIESEL ENGINE



Sample No: VCP418995
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: D12790 PAYNE & DOLAN



SAMPLE INFORMATION

Sample Number	VCP418995	---	---	---
Sample Date	14 Sep 2023	---	---	---
Machine Hours	439	---	---	---
Oil Hours	439	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

ARING EQUIPMENT COMPANY INC - MAIN (MILWAUKEE)
 13001 W SILVERE SPRING DR
 BUTLER, WI
 US 53007
 Contact: GLENN OTTENBACHER
 gottenbacher@aring.com
 T: (262)282-0715
 F: (262)781-5053



OIL CONDITION

Visc @ 100°C	cSt	▲ 11.6	---	---	---
Base Number (BN)	mg KOH/g	■ 6.5	---	---	---
Oxidation (PA)	%	67	---	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

Soot %	%	■ 0	---	---	---
Nitration (PA)	%	88	---	---	---
Sulfation (PA)	%	61	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	■ 0.5	---	---	---
Silicon	ppm	■ 27	---	---	---
Sodium	ppm	■ 4	---	---	---
Potassium	ppm	■ 5	---	---	---



WEAR METALS

Iron	ppm	■ 14	---	---	---
Copper	ppm	▲ 245	---	---	---
Lead	ppm	■ 1	---	---	---
Tin	ppm	■ 2	---	---	---
Aluminum	ppm	■ 3	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 93	---	---	---
Nickel	ppm	■ 2	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 3	---	---	---
Vanadium	ppm	<1	---	---	---



ADDITIVES

Calcium	ppm	■ 2286	---	---	---
Magnesium	ppm	■ 20	---	---	---
Zinc	ppm	■ 1236	---	---	---
Phosphorus	ppm	■ 1022	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 48	---	---	---

Depot: VOLVO0069
Unique No: 10656954
Signed: Jonathan Hester
Report Date: 21 Sep 2023



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GRAPHS

