



CONSTRUCTION EQUIPMENT

2023-1013878 VOLVO L250H 61 - DIESEL ENGINE



Sample No: VCP411950
Oil Type: SHELL ROTELLA T 15W40
Job No: 2023-1013878



SAMPLE INFORMATION

Sample Number	VCP411950	VCP401538	VCP319750	VCP288964
Sample Date	26 Oct 2023	16 Aug 2023	30 Nov 2021	13 Apr 2021
Machine Hours	16681	16170	12087	10465
Oil Hours	500	500	500	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	NORMAL	ATTENTION	ATTENTION

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.1	■ 11.8	▲ 10.7	▲ 11.3
Base Number (BN)	mg KOH/g	■ 5.5	■ 4.2	■ 3.1	---
Oxidation (PA)	%	64	66	70	59

CONTAMINATION

Soot %	%	■ 0.3	■ 0.4	■ 0.6	■ 0.2
Nitration (PA)	%	65	68	74	65
Sulfation (PA)	%	60	61	69	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	■ 1.3
Silicon	ppm	■ 6	■ 5	■ 15	■ 2
Sodium	ppm	■ 3	■ 6	■ 6	■ 2
Potassium	ppm	■ 2	■ 1	■ 3	■ 1

WEAR METALS

Iron	ppm	■ 9	■ 9	■ 22	■ 12
Copper	ppm	■ 1	■ <1	■ 3	■ 2
Lead	ppm	■ <1	■ 1	■ 10	■ 3
Tin	ppm	■ 0	■ <1	■ 1	■ <1
Aluminum	ppm	■ 2	■ 1	■ 2	■ 0
Chromium	ppm	■ <1	■ 0	■ <1	■ <1
Molybdenum	ppm	■ 17	■ 35	■ 34	■ 21
Nickel	ppm	■ 0	■ 0	■ <1	■ 0
Titanium	ppm	0	<1	2	<1
Silver	ppm	■ 0	■ 0	0	0
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	0	<1	0	0

ADDITIVES

Calcium	ppm	■ 1868	■ 1811	■ 1359	■ 1873
Magnesium	ppm	■ 106	■ 229	■ 389	■ 97
Zinc	ppm	■ 1062	■ 1032	■ 911	■ 858
Phosphorus	ppm	■ 886	■ 851	■ 784	■ 775
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 52	18	■ 7	13

Diagnosis

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot: JMHMAR
Unique No: 10737066
Signed: Don Baldrige
Report Date: 13 Nov 2023



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GRAPHS

