



CONSTRUCTION EQUIPMENT

SW1023101 VOLVO L220H 3297 - DIESEL ENGINE



Sample No: VCP370754
Oil Type: NOT GIVEN
Job No: SW1023101



SAMPLE INFORMATION

Sample Number	VCP370754	---	---	---
Sample Date	24 Aug 2023	---	---	---
Machine Hours	5418	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	SEVERE	---	---	---



OIL CONDITION

Visc @ 100°C	cSt	█ 13.7	---	---	---
Base Number (BN)	mg KOH/g	█ 13.7	---	---	---
Oxidation (PA)	%	73	---	---	---



CONTAMINATION

Soot %	%	█ 0.5	---	---	---
Nitration (PA)	%	75	---	---	---
Sulfation (PA)	%	80	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	● 2974	---	---	---
Sodium	ppm	▲ 292	---	---	---
Potassium	ppm	▲ 178	---	---	---



WEAR METALS

Iron	ppm	● 1468	---	---	---
Copper	ppm	▲ 21	---	---	---
Lead	ppm	█ 13	---	---	---
Tin	ppm	▲ 10	---	---	---
Aluminum	ppm	● 951	---	---	---
Chromium	ppm	● 37	---	---	---
Molybdenum	ppm	█ 54	---	---	---
Nickel	ppm	█ 9	---	---	---
Titanium	ppm	█ 116	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	22	---	---	---
Vanadium	ppm	4	---	---	---



ADDITIVES

Calcium	ppm	█ 2584	---	---	---
Magnesium	ppm	█ 1178	---	---	---
Zinc	ppm	█ 1013	---	---	---
Phosphorus	ppm	█ 883	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 40	---	---	---



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Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Piston, ring and cylinder wear is indicated. High wear metal levels reflect the reported failure. Sodium and/or potassium levels are high. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Depot: VOLVO6174
Unique No: 10619892
Signed: Jonathan Hester
Report Date: 29 Aug 2023



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VOLVO GRAPHS

