



CONSTRUCTION EQUIPMENT

VOLVO L20H 1220100 - DIESEL ENGINE



Sample No: VCP433580
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP433580	VCP264490	VCP246896	---
Sample Date	24 Sep 2023	28 Jan 2020	19 Jun 2019	---
Machine Hours	5056	786	272	---
Oil Hours	0	0	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ABNORMAL	NORMAL	NORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	13.6	12.0	11.2	---
Base Number (BN)	mg KOH/g	4.9	---	---	---
Oxidation (PA)	%	108	88	76	---



CONTAMINATION

Soot %	%	0.1	0.1	0.1	---
Nitration (PA)	%	103	68	54	---
Sulfation (PA)	%	71	62	59	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	8	13	19	---
Sodium	ppm	5	5	8	---
Potassium	ppm	0	4	4	---



WEAR METALS

Iron	ppm	11	11	11	---
Copper	ppm	62	6	8	---
Lead	ppm	0	1	2	---
Tin	ppm	2	0	0	---
Aluminum	ppm	4	2	4	---
Chromium	ppm	<1	1	1	---
Molybdenum	ppm	55	37	34	---
Nickel	ppm	0	<1	0	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	0	0	---
Manganese	ppm	<1	3	2	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	1750	1880	1867	---
Magnesium	ppm	606	457	422	---
Zinc	ppm	1194	932	976	---
Phosphorus	ppm	884	714	844	---
Barium	ppm	0	2	2	---
Boron	ppm	14	41	50	---

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. All other 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: VOLVO0090
Unique No: 10669214
Signed: Don Baldrige
Report Date: 28 Sep 2023



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GRAPHS

