



CONSTRUCTION EQUIPMENT

VOLVO L180H 5479 - DIESEL ENGINE



Sample No: VCP430677
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP430677	VCP415840	VCP339726	VCP324297
Sample Date	02 Oct 2023	22 Jun 2023	01 Dec 2021	24 Jun 2021
Machine Hours	4842	4500	1341	494
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	ATTENTION	ABNORMAL	ABNORMAL

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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.5	▲ 11.7	■ 12.8	▲ 11.4
Base Number (BN)	mg KOH/g	■ 8.1	■ 9.3	■ 8.4	---
Oxidation (PA)	%	65	59	87	69



CONTAMINATION

Soot %	%	■ 0.3	■ 0.2	■ 0.3	■ 0.2
Nitration (PA)	%	74	68	78	58
Sulfation (PA)	%	55	53	66	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	■ 0.3	<1.0	■ 0.5
Silicon	ppm	■ 8	■ 6	■ 7	■ 22
Sodium	ppm	■ 13	■ 9	■ 5	■ 3
Potassium	ppm	■ 4	■ 4	■ <1	■ 4



WEAR METALS

Iron	ppm	■ 11	■ 7	■ 9	■ 11
Copper	ppm	■ 8	■ 3	▲ 312	▲ 329
Lead	ppm	■ <1	■ 2	■ 5	■ <1
Tin	ppm	■ 1	■ 1	■ 2	■ 3
Aluminum	ppm	■ 2	■ 0	■ 1	■ 0
Chromium	ppm	■ <1	■ <1	■ <1	■ <1
Molybdenum	ppm	■ 54	■ 54	■ 46	■ 65
Nickel	ppm	■ <1	■ <1	■ 0	■ <1
Titanium	ppm	<1	<1	0	<1
Silver	ppm	■ 0	■ <1	0	<1
Manganese	ppm	■ 1	■ 1	■ 1	■ 4
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	■ 1581	■ 1583	■ 1672	■ 1781
Magnesium	ppm	755	797	■ 479	■ 408
Zinc	ppm	■ 1091	■ 1098	■ 1049	■ 1255
Phosphorus	ppm	■ 896	■ 915	■ 875	■ 1033
Barium	ppm	■ 0	■ 4	■ 0	■ 0
Boron	ppm	■ 25	■ 40	■ 12	130

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: VOLVO0090
Unique No: 10676014
Signed: Sean Felton
Report Date: 06 Oct 2023



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GRAPHS

