



CONSTRUCTION EQUIPMENT

VOLVO A45G 342321 - DIESEL ENGINE



Sample No: VCP416613
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP416613	VCP413255	VCP403659	VCP388323
Sample Date	17 Oct 2023	11 Jul 2023	22 Mar 2023	23 Nov 2022
Machine Hours	8968	8493	8012	7534
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.3	■ 12.8	■ 12.6	■ 12.9
Base Number (BN)	mg KOH/g	■ 9.2	■ 10.1	■ 10.0	■ 11.4
Oxidation (PA)	%	76	80	79	88

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. 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 %	%	■ 0.1	■ 0.2	■ 0.1	■ 0.2
Nitration (PA)	%	56	60	60	68
Sulfation (PA)	%	58	60	60	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	■ 0.2	<1.0	<1.0	<1.0
Silicon	ppm	■ 5	■ 4	■ 5	■ 4
Sodium	ppm	■ 2	■ 2	■ 3	■ 5
Potassium	ppm	■ 0	■ 0	■ <1	■ 0



WEAR METALS

Iron	ppm	■ 3	■ 7	■ 7	■ 6
Copper	ppm	■ 0	■ 0	■ 1	■ <1
Lead	ppm	■ <1	■ 0	■ <1	■ <1
Tin	ppm	■ <1	■ 0	■ <1	■ <1
Aluminum	ppm	■ 1	■ 1	■ 2	■ 2
Chromium	ppm	■ 0	■ <1	■ <1	■ <1
Molybdenum	ppm	■ 41	■ 46	■ 44	■ 40
Nickel	ppm	■ <1	■ <1	■ <1	■ <1
Titanium	ppm	0	0	0	0
Silver	ppm	■ 0	■ 0	■ 0	■ 0
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 1639	■ 1849	■ 1671	■ 1664
Magnesium	ppm	■ 506	■ 574	■ 497	■ 508
Zinc	ppm	■ 944	■ 1256	■ 1074	■ 1081
Phosphorus	ppm	■ 805	■ 1043	■ 940	■ 881
Barium	ppm	■ 0	■ 0	■ 2	■ 0
Boron	ppm	■ 38	■ 67	■ 69	■ 46

Depot: SAIBIR
Unique No: 10714606
Signed: Don Baldrige
Report Date: 31 Oct 2023



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GRAPHS

