



CONSTRUCTION EQUIPMENT

RS0034781 VOLVO A45G 352025 - DIESEL ENGINE



Sample No: VCP426968
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: RS0034781



SAMPLE INFORMATION

Sample Number	VCP426968	VCP409326	VCP369483	VCP333380
Sample Date	25 Jul 2023	23 Feb 2023	07 Dec 2022	26 Apr 2022
Machine Hours	6537	5806	5351	4268
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	ATTENTION	NORMAL	NORMAL

COWIN EQUIPMENT COMPANY

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.4	▲ 12.3	■ 12.6	■ 13.4
Base Number (BN)	mg KOH/g	■ 9.6	■ 9.8	■ 10.6	■ 9.2
Oxidation (PA)	%	82	79	87	92



CONTAMINATION

Soot %	%	■ 0.2	■ 0.1	■ 0.2	■ 0.6
Nitration (PA)	%	66	59	66	92
Sulfation (PA)	%	61	60	67	69
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	■ 1.5	<1.0	<1.0
Silicon	ppm	■ 4	■ 4	■ 5	■ 8
Sodium	ppm	■ 0	■ <1	■ <1	■ 3
Potassium	ppm	■ <1	■ <1	■ 1	■ 0



WEAR METALS

Iron	ppm	■ 5	■ 4	■ 7	■ 15
Copper	ppm	■ <1	■ 0	■ <1	■ 6
Lead	ppm	■ <1	■ <1	■ <1	■ 2
Tin	ppm	■ <1	■ <1	■ <1	■ 2
Aluminum	ppm	■ 1	■ 1	■ 1	■ 4
Chromium	ppm	■ 0	■ 0	■ <1	■ <1
Molybdenum	ppm	■ 47	■ 43	■ 43	■ 40
Nickel	ppm	■ 1	■ <1	■ 2	■ 3
Titanium	ppm	0	0	0	<1
Silver	ppm	■ <1	■ 0	■ 0	■ 0
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 1769	■ 1809	■ 1739	■ 1915
Magnesium	ppm	■ 500	■ 505	■ 489	■ 495
Zinc	ppm	■ 1019	■ 995	■ 939	■ 1109
Phosphorus	ppm	■ 848	■ 818	■ 769	■ 985
Barium	ppm	■ 2	■ 0	■ 0	■ 0
Boron	ppm	■ 46	■ 55	■ 47	■ 33

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: VOLVO8247
Unique No: 10603061
Signed: Don Baldrige
Report Date: 15 Aug 2023



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GRAPHS

