



CONSTRUCTION EQUIPMENT

VOLVO A45G 352834 - DIESEL ENGINE



Sample No: VCP402632
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP402632	VCP393532	VCP400417	VCP344131
Sample Date	12 Sep 2023	07 Jun 2023	06 Jan 2023	15 Nov 2021
Machine Hours	3914	3440	2709	577
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	N/A	Changed
Sample Status	ATTENTION	ATTENTION	ABNORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.2	▲ 9.4	■ 12.6	■ 12.8
Base Number (BN)	mg KOH/g	■ 9.4	■ 9.9	■ 6.6	---
Oxidation (PA)	%	71	63	89	76



CONTAMINATION

Soot %	%	■ 0.5	■ 0.3	■ 0.3	■ 0.1
Nitration (PA)	%	58	58	90	44
Sulfation (PA)	%	58	55	67	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	■ 0.5	<1.0	<1.0
Silicon	ppm	■ 4	■ 4	■ 13	■ 8
Sodium	ppm	■ 3	■ 0	■ 3	■ 4
Potassium	ppm	■ <1	■ 1	■ 0	■ <1



WEAR METALS

Iron	ppm	■ 9	■ 6	■ 16	■ 6
Copper	ppm	■ 1	■ <1	■ 55	■ 2
Lead	ppm	■ <1	■ <1	■ 3	■ <1
Tin	ppm	■ 1	■ <1	■ 2	■ 1
Aluminum	ppm	■ 2	■ <1	■ 3	■ 1
Chromium	ppm	■ 0	■ 0	■ <1	■ <1
Molybdenum	ppm	■ 70	■ 50	■ 52	■ 46
Nickel	ppm	■ 1	■ 2	▲ 8	■ 1
Titanium	ppm	<1	0	<1	<1
Silver	ppm	■ 0	■ 0	■ 0	■ <1
Manganese	ppm	■ <1	■ <1	■ 2	■ <1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	■ 1874	■ 1516	■ 1768	■ 1771
Magnesium	ppm	■ 586	■ 600	■ 458	■ 495
Zinc	ppm	■ 1172	■ 1049	■ 1109	■ 1040
Phosphorus	ppm	■ 957	■ 878	■ 804	■ 1006
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 37	■ 49	■ 9	■ 75

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: 10649655
Signed: Don Baldrige
Report Date: 20 Sep 2023



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GRAPHS

