



CONSTRUCTION EQUIPMENT

565144 MOSAIC VOLVO A45G 342286 - DIESEL ENGINE



Sample No: VCP411587
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 565144 MOSAIC



SAMPLE INFORMATION

Sample Number	VCP411587	VCP409309	VCP388195	VCP372375
Sample Date	05 Jun 2023	15 Feb 2023	21 Oct 2022	10 Jun 2022
Machine Hours	7102	6453	5893	5089
Oil Hours	500	500	500	500
Oil Changed	Changed	N/A	Not Changd	Changed
Sample Status	ATTENTION	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.7	■ 12.6	■ 13.2	■ 12.9
Base Number (BN)	mg KOH/g	■ 9.2	■ 9.9	■ 11.3	■ 11.0
Oxidation (PA)	%	84	80	89	85



CONTAMINATION

Soot %	%	■ 0.1	■ 0.2	■ 0.4	■ 0.3
Nitration (PA)	%	71	61	73	65
Sulfation (PA)	%	61	61	66	64
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	■ 0.6	<1.0	<1.0	<1.0
Silicon	ppm	■ 4	■ 4	■ 4	■ 5
Sodium	ppm	■ 2	■ 2	■ 3	■ 3
Potassium	ppm	■ <1	■ <1	■ 0	■ 0

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.



WEAR METALS

Iron	ppm	■ 4	■ 5	■ 7	■ 7
Copper	ppm	■ 2	■ 1	■ 2	■ 3
Lead	ppm	■ 1	■ <1	■ 2	■ 1
Tin	ppm	■ <1	■ <1	■ <1	■ <1
Aluminum	ppm	■ 2	■ 1	■ 2	■ 2
Chromium	ppm	■ 0	■ <1	■ <1	■ <1
Molybdenum	ppm	■ 45	■ 44	■ 39	■ 43
Nickel	ppm	■ <1	■ 0	■ <1	■ <1
Titanium	ppm	<1	0	<1	<1
Silver	ppm	■ 0	■ 0	■ 0	■ <1
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	■ 1623	■ 1616	■ 1657	■ 1809
Magnesium	ppm	■ 473	■ 488	■ 479	■ 539
Zinc	ppm	■ 1015	■ 1101	■ 1078	■ 1135
Phosphorus	ppm	■ 826	■ 914	■ 907	■ 952
Barium	ppm	■ 0	■ 0	■ 8	■ 0
Boron	ppm	■ 24	■ 40	■ 23	■ 41

Depot: VOLVO0093
Unique No: 10550568
Signed: Don Baldrige
Report Date: 12 Jul 2023



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VOLVO GRAPHS

