



CONSTRUCTION EQUIPMENT

SEC CONSTRUCTION VOLVO A45G 353618 - DIESEL ENGINE



Sample No: VCP370287
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SEC CONSTRUCTION



SAMPLE INFORMATION

Sample Number	VCP370287	VCP389304	VCP417078	---
Sample Date	11 Oct 2023	27 Jul 2023	20 Jun 2023	---
Machine Hours	1032	516	264	---
Oil Hours	0	500	264	---
Oil Changed	N/A	Changed	Changed	---
Sample Status	ATTENTION	ATTENTION	ATTENTION	---

216 - ASCENDUM MACHINERY INC - PIEDMONT
 407 OAK ROAD
 PIEDMONT, SC
 US 29673
 Contact: KEMP COBLE
 kemp.coble@ascendummachinery.com
 T: (864)704-1060
 F: (864)704-1069



OIL CONDITION

Visc @ 100°C	cSt	▲ 12.0	▲ 11.8	▲ 10.8	---
Base Number (BN)	mg KOH/g	■ 9.6	■ 10.4	■ 7.2	---
Oxidation (PA)	%	76	73	51	---

Diagnosis

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.



CONTAMINATION

Soot %	%	■ 0.2	■ 0.2	■ 0.1	---
Nitration (PA)	%	49	49	68	---
Sulfation (PA)	%	59	58	48	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	■ 0.8	---
Silicon	ppm	■ 8	■ 10	■ 27	---
Sodium	ppm	■ 3	■ 2	■ 5	---
Potassium	ppm	■ 0	■ <1	■ 2	---



WEAR METALS

Iron	ppm	■ 9	■ 6	■ 12	---
Copper	ppm	■ 4	■ 10	■ 83	---
Lead	ppm	■ 0	■ 0	■ <1	---
Tin	ppm	■ 1	■ 1	■ 3	---
Aluminum	ppm	■ 1	■ <1	■ 2	---
Chromium	ppm	■ 1	■ <1	■ 1	---
Molybdenum	ppm	■ 40	■ 44	■ 87	---
Nickel	ppm	■ <1	■ <1	■ <1	---
Titanium	ppm	<1	0	0	---
Silver	ppm	■ 0	■ 0	■ 0	---
Manganese	ppm	■ <1	■ <1	■ 2	---
Vanadium	ppm	<1	0	0	---



ADDITIVES

Calcium	ppm	■ 1602	■ 1751	■ 2234	---
Magnesium	ppm	■ 454	■ 455	20	---
Zinc	ppm	■ 1017	■ 1089	■ 1262	---
Phosphorus	ppm	■ 868	■ 931	■ 1056	---
Barium	ppm	■ 0	■ 2	■ 0	---
Boron	ppm	■ 48	■ 65	■ 75	---

Depot: VOLVO4596
Unique No: 10696500
Signed: Don Baldrige
Report Date: 17 Oct 2023



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GRAPHS

