



CONSTRUCTION EQUIPMENT

SW-23754-2 CASTLE VA VOLVO A40G 340313 - DIESEL ENGINE



Sample No: VCP412189
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-23754-2 CASTLE VA



SAMPLE INFORMATION

Sample Number	VCP412189	VCP419291	VCP406296	VCP357492
Sample Date	11 Sep 2023	26 Jun 2023	19 Apr 2023	19 Oct 2022
Machine Hours	17019	16501	16023	15182
Oil Hours	519	500	580	488
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.5	12.7	12.1	12.8
Base Number (BN)	mg KOH/g	9.2	9.8	8.5	11.2
Oxidation (PA)	%	55	61	72	61



CONTAMINATION

Soot %	%	0.1	0.2	0.3	0.1
Nitration (PA)	%	47	53	53	61
Sulfation (PA)	%	50	54	57	55
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	0.3	<1.0
Silicon	ppm	2	3	7	3
Sodium	ppm	2	1	3	<1
Potassium	ppm	<1	1	0	0



WEAR METALS

Iron	ppm	2	5	13	3
Copper	ppm	<1	1	2	0
Lead	ppm	0	0	0	0
Tin	ppm	<1	<1	0	0
Aluminum	ppm	<1	1	2	0
Chromium	ppm	0	<1	0	<1
Molybdenum	ppm	63	64	50	56
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	<1



ADDITIVES

Calcium	ppm	1226	1195	1422	1196
Magnesium	ppm	1083	950	560	905
Zinc	ppm	1368	1325	1133	1227
Phosphorus	ppm	1108	1068	905	964
Barium	ppm	0	0	0	0
Boron	ppm	5	24	90	3

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: VOLVO8770
Unique No: 10649631
Signed: Sean Felton
Report Date: 20 Sep 2023



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GRAPHS

