



CONSTRUCTION EQUIPMENT

VOLVO L220H 3440 - DIESEL ENGINE



Sample No: VCP440501
Oil Type: SHELL ROTELLA T3 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP440501	VCP441740	VCP441739	VCP441805
Sample Date	22 Mar 2024	07 Mar 2024	22 Feb 2024	06 Feb 2024
Machine Hours	8460	8197	7921	7621
Oil Hours	263	276	300	283
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.3	13.5	13.4	13.3
Base Number (BN)	mg KOH/g	6.7	6.6	6.7	7.1
Oxidation (PA)	%	39	40	40	42



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	53	53	53	51
Sulfation (PA)	%	46	46	47	48
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	8	8	8
Sodium	ppm	<1	<1	<1	1
Potassium	ppm	<1	2	3	1



WEAR METALS

Iron	ppm	1	4	3	2
Copper	ppm	0	5	<1	<1
Lead	ppm	0	<1	<1	0
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	<1	2	2	1
Chromium	ppm	0	<1	<1	0
Molybdenum	ppm	13	18	15	12
Nickel	ppm	0	<1	0	0
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	<1	<1	0
Manganese	ppm	0	<1	0	0
Vanadium	ppm	0	<1	<1	0



ADDITIVES

Calcium	ppm	2491	2290	2343	2244
Magnesium	ppm	67	59	62	65
Zinc	ppm	1173	1050	1106	1120
Phosphorus	ppm	1023	916	998	933
Barium	ppm	0	0	0	0
Boron	ppm	12	17	17	14

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: COVWES
Unique No: 10964494
Signed: Wes Davis
Report Date: 06 Apr 2024



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GRAPHS

