



CONSTRUCTION EQUIPMENT

VOLVO L220H 3440 - DIESEL ENGINE



Sample No: VCP404564
Oil Type: SHELL ROTELLA T3 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP404564	VCP415185	VCP415184	VCP410516
Sample Date	06 Oct 2023	21 Sep 2023	05 Sep 2023	18 Aug 2023
Machine Hours	5284	5008	4714	4413
Oil Hours	276	294	301	271
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.3	13.4	13.4	13.2
Base Number (BN)	mg KOH/g	7.1	7.0	---	7.4
Oxidation (PA)	%	45	45	47	48



CONTAMINATION

Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	55	53	54	50
Sulfation (PA)	%	48	47	49	47
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	13	14	13	11
Sodium	ppm	3	1	<1	3
Potassium	ppm	2	<1	0	4



WEAR METALS

Iron	ppm	<1	2	2	2
Copper	ppm	<1	<1	1	<1
Lead	ppm	<1	<1	0	1
Tin	ppm	<1	<1	0	<1
Aluminum	ppm	2	0	1	1
Chromium	ppm	0	0	<1	<1
Molybdenum	ppm	24	30	32	40
Nickel	ppm	<1	0	0	0
Titanium	ppm	0	<1	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	<1	0	<1



ADDITIVES

Calcium	ppm	2021	2128	2224	1900
Magnesium	ppm	145	185	205	252
Zinc	ppm	1107	1164	1201	1164
Phosphorus	ppm	920	944	987	923
Barium	ppm	0	0	0	0
Boron	ppm	26	37	36	52

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: 10695308
Signed: Don Baldrige
Report Date: 16 Oct 2023



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VOLVO GRAPHS

