



CONSTRUCTION EQUIPMENT

VOLVO L110H 631322 - DIESEL ENGINE



Sample No: VCP440630
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP440630	VCP393753	VCP410340	VCP395716
Sample Date	30 Nov 2023	01 Aug 2023	01 Apr 2023	22 Feb 2023
Machine Hours	10589	9947	9562	9341
Oil Hours	0	500	210	500
Oil Changed	Changed	Changed	Not Changd	Changed
Sample Status	ABNORMAL	ABNORMAL	ATTENTION	SEVERE

RIPA AND ASSOCIATES

10149 FISHER AVENUE
TAMPA, FL
US 33619
Contact: PM Services
PMServices@ripaconstruction.com
T:
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OIL CONDITION

Visc @ 100°C	cSt	14.0	12.9	12.8	12.8
Base Number (BN)	mg KOH/g	8.0	9.4	10.3	10.2
Oxidation (PA)	%	53	79	76	80

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level has decreased, but is still abnormal. All other 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 acceptable for the time in service.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.3	0.2	0.3
Nitration (PA)	%	57	64	52	65
Sulfation (PA)	%	47	58	60	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	7	5	8
Sodium	ppm	0	3	2	0
Potassium	ppm	3	2	0	2



WEAR METALS

Iron	ppm	6	23	11	34
Copper	ppm	<1	1	<1	4
Lead	ppm	<1	<1	0	<1
Tin	ppm	<1	1	0	<1
Aluminum	ppm	▲ 17	▲ 37	▲ 23	● 104
Chromium	ppm	<1	2	1	4
Molybdenum	ppm	69	47	47	47
Nickel	ppm	<1	<1	0	2
Titanium	ppm	<1	<1	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	<1	0	0	<1



ADDITIVES

Calcium	ppm	1697	1747	1690	1585
Magnesium	ppm	212	582	552	522
Zinc	ppm	1105	1237	1160	1122
Phosphorus	ppm	917	1009	980	936
Barium	ppm	<1	0	0	2
Boron	ppm	58	27	50	28

Depot: RIPTAM
Unique No: 10870765
Signed: Don Baldrige
Report Date: 09 Feb 2024



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VOLVO GRAPHS

