



CONSTRUCTION EQUIPMENT

VOLVO L90H 623360 - DIESEL ENGINE



Sample No: VCP441883
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP441883	VCP385329	VCP336970	VCP277084
Sample Date	19 Jan 2024	18 Oct 2022	17 Nov 2021	07 Oct 2020
Machine Hours	7060	5887	5225	4658
Oil Hours	0	0	1500	0
Oil Changed	N/A	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

RIPA AND ASSOCIATES

10149 FISHER AVENUE
TAMPA, FL
US 33619
Contact: PM Services
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T:
F:



OIL CONDITION

Visc @ 100°C	cSt	13.8	12.5	13.4	12.5
Base Number (BN)	mg KOH/g	6.8	11.7	---	---
Oxidation (PA)	%	66	85	89	81

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.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.5	0.3	0.7	0.4
Nitration (PA)	%	84	63	93	89
Sulfation (PA)	%	56	65	65	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	6	8	5
Sodium	ppm	0	1	4	4
Potassium	ppm	3	<1	1	1



WEAR METALS

Iron	ppm	16	6	26	18
Copper	ppm	2	<1	2	2
Lead	ppm	0	0	<1	1
Tin	ppm	0	0	<1	<1
Aluminum	ppm	23	3	27	10
Chromium	ppm	1	<1	2	1
Molybdenum	ppm	67	41	46	40
Nickel	ppm	0	0	0	<1
Titanium	ppm	2	0	<1	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	2007	1724	1777	1592
Magnesium	ppm	173	484	518	431
Zinc	ppm	1198	1156	1155	1031
Phosphorus	ppm	942	970	1018	931
Barium	ppm	5	0	0	0
Boron	ppm	39	43	23	23

Depot: RIPTAM
Unique No: 10863259
Signed: Don Baldrige
Report Date: 07 Feb 2024



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GRAPHS

