



CONSTRUCTION EQUIPMENT

VOLVO L90H 624038 - DIESEL ENGINE



Sample No: VCP409198
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP409198	VCP394257	VCP387869	VCP310944
Sample Date	27 Jun 2023	27 Feb 2023	12 Sep 2022	26 Mar 2021
Machine Hours	7286	6648	6134	4632
Oil Hours	500	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

RIPA AND ASSOCIATES

10149 FISHER AVENUE
TAMPA, FL
US 33619
Contact: ROBERT TURNER
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OIL CONDITION

Visc @ 100°C	cSt	█ 12.4	█ 12.7	█ 13.2	█ 12.7
Base Number (BN)	mg KOH/g	█ 10.4	█ 10.6	█ 11.8	---
Oxidation (PA)	%	80	81	86	85

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

Soot %	%	█ 0.4	█ 0.3	█ 0.4	█ 0.3
Nitration (PA)	%	63	61	64	66
Sulfation (PA)	%	60	61	65	64
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	█ 6	█ 4	█ 7	█ 6
Sodium	ppm	█ 2	█ 0	█ 1	█ 3
Potassium	ppm	█ 0	█ 2	█ <1	█ <1



WEAR METALS

Iron	ppm	█ 8	█ 8	█ 8	█ 8
Copper	ppm	█ <1	█ <1	█ <1	█ <1
Lead	ppm	█ 0	█ 0	█ 0	█ 0
Tin	ppm	█ <1	█ <1	█ 0	█ <1
Aluminum	ppm	█ 5	█ 8	█ 4	█ 3
Chromium	ppm	█ <1	█ <1	█ <1	█ <1
Molybdenum	ppm	█ 41	█ 41	█ 40	█ 43
Nickel	ppm	█ 0	█ <1	█ 0	█ 0
Titanium	ppm	0	0	0	<1
Silver	ppm	█ 0	█ 0	█ 0	█ 0
Manganese	ppm	█ <1	█ <1	█ <1	█ <1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	█ 1559	█ 1577	█ 1685	█ 1603
Magnesium	ppm	█ 490	█ 465	█ 476	█ 482
Zinc	ppm	█ 1035	█ 1070	█ 1068	█ 1052
Phosphorus	ppm	█ 859	█ 871	█ 896	█ 911
Barium	ppm	█ 0	█ 2	█ 0	█ 0
Boron	ppm	█ 27	█ 35	█ 33	█ 35

Depot: RIPTAM
Unique No: 10551679
Signed: Wes Davis
Report Date: 12 Jul 2023



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GRAPHS

