



CONSTRUCTION EQUIPMENT

IMPACT AUTO VOLVO L90H 623902 - DIESEL ENGINE



Sample No: VCP394470
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP394470	VCP352622	VCP352934	VCP347042
Sample Date	04 Dec 2023	17 Oct 2023	01 Mar 2023	04 Apr 2022
Machine Hours	9563	9523	8528	7154
Oil Hours	50	500	500	0
Oil Changed	Not Chngd	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	■ 13.1	▲ 10.6	■ 13.1	■ 13.2
Oxidation (PA)	%	■ 80	73	86	83



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	■ 0	■ 0.1	■ 0	■ 0
Nitration (PA)	%	41	53	61	58
Sulfation (PA)	%	61	57	68	68
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	■ 1.1	▲ 8	<1.0	<1.0
Silicon	ppm	■ 6	■ 4	■ 4	■ 6
Sodium	ppm	■ 2	■ 3	■ 2	■ 2
Potassium	ppm	■ 0	■ 0	■ 0	■ <1

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	■ 2	■ 5	■ 8	■ 9
Copper	ppm	■ <1	■ 1	■ <1	■ <1
Lead	ppm	■ 0	■ <1	■ 0	■ 0
Tin	ppm	■ 0	■ 0	■ <1	■ <1
Aluminum	ppm	■ 2	■ 4	■ 4	■ 5
Chromium	ppm	■ 0	■ 0	■ <1	■ <1
Molybdenum	ppm	■ 39	■ 40	■ 43	■ 40
Nickel	ppm	■ 0	■ 0	■ 0	■ <1
Titanium	ppm	0	0	<1	0
Silver	ppm	■ <1	■ <1	■ 0	■ 0
Manganese	ppm	■ 0	■ 0	■ <1	■ <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 1541	■ 1614	■ 1826	■ 1654
Magnesium	ppm	■ 476	■ 485	■ 517	■ 515
Zinc	ppm	■ 1015	■ 1038	■ 1092	■ 1100
Phosphorus	ppm	■ 863	■ 891	■ 1004	■ 982
Barium	ppm	■ <1	■ <1	■ 0	■ 0
Boron	ppm	■ 53	■ 32	■ 38	■ 41

Depot: VOLVO3908
Unique No: 5693958
Signed: Wes Davis
Report Date: 06 Dec 2023



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GRAPHS

