



CONSTRUCTION EQUIPMENT

SW-27905-2 MANHEIM VOLVO L90F 68702 - DIESEL ENGINE



Sample No: VCP435843
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-27905-2 MANHEIM



SAMPLE INFORMATION

Sample Number	VCP435843	VCP443484	VCP412991	VCP405842
Sample Date	22 Dec 2023	25 Oct 2023	08 Sep 2023	28 Apr 2023
Machine Hours	17058	16793	16602	16049
Oil Hours	250	200	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	14.1	14.3	13.4	13.4
Base Number (BN)	mg KOH/g	8.1	9.0	9.4	8.8
Oxidation (PA)	%	54	50	56	55

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 %	%	0.1	0.1	0.2	0.2
Nitration (PA)	%	52	40	50	48
Sulfation (PA)	%	50	48	52	48
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	2	2	3	3
Sodium	ppm	1	2	2	<1
Potassium	ppm	1	1	0	<1



WEAR METALS

Iron	ppm	<1	0	3	4
Copper	ppm	<1	1	<1	<1
Lead	ppm	<1	0	0	<1
Tin	ppm	<1	0	<1	<1
Aluminum	ppm	2	1	2	<1
Chromium	ppm	0	0	0	<1
Molybdenum	ppm	63	58	60	62
Nickel	ppm	0	<1	0	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1430	996	1144	1235
Magnesium	ppm	611	949	966	974
Zinc	ppm	1265	1280	1217	1205
Phosphorus	ppm	1060	1036	1034	1033
Barium	ppm	0	0	0	0
Boron	ppm	38	8	8	17

Depot: VOLVO8770
Unique No: 10809272
Signed: Wes Davis
Report Date: 03 Jan 2024



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GRAPHS

