



CONSTRUCTION EQUIPMENT

SWA350376-20 VOLVO L220H 2933 - DIESEL ENGINE



Sample No: VCP424075
Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40
Job No: SWA350376-20



SAMPLE INFORMATION

Sample Number	VCP424075	VCP332067	VCP278988	VCP326788
Sample Date	07 Sep 2023	26 Aug 2022	15 Apr 2022	07 Oct 2021
Machine Hours	9700	4665	4205	3532
Oil Hours	0	500	500	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



DENALI WE CARE

400 TORNE RD
HILLBURN, NY
US 10931
Contact: Service Manager



OIL CONDITION

Visc @ 100°C	cSt	12.8	13.0	12.6	13.0
Base Number (BN)	mg KOH/g	9.1	11.8	6.4	---
Oxidation (PA)	%	81	85	66	62

T:
F:

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 %	%	0.3	0.2	0.3	0.1
Nitration (PA)	%	67	71	67	53
Sulfation (PA)	%	60	64	59	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	2	4	4
Sodium	ppm	3	3	<1	<1
Potassium	ppm	<1	3	0	1



WEAR METALS

Iron	ppm	4	4	7	3
Copper	ppm	1	<1	2	1
Lead	ppm	<1	1	<1	<1
Tin	ppm	<1	1	<1	<1
Aluminum	ppm	1	0	2	2
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	41	42	66	73
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	<1	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	0	<1



ADDITIVES

Calcium	ppm	1913	1580	1577	1530
Magnesium	ppm	553	480	443	422
Zinc	ppm	1214	1107	1154	1207
Phosphorus	ppm	978	876	998	991
Barium	ppm	0	0	0	0
Boron	ppm	38	70	185	323

Depot: DENHIL
Unique No: 10649666
Signed: Wes Davis
Report Date: 20 Sep 2023



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GRAPHS

