



CONSTRUCTION EQUIPMENT

23629 VOLVO EC380EL 314027 - DIESEL ENGINE



Sample No: VCP420874
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 23629



218 - ASCENDUM MACHINERY INC - N. CHARLESTON
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SAMPLE INFORMATION

Sample Number	VCP420874	VCP400690	VCP383506	VCP376747
Sample Date	12 Jul 2023	02 Feb 2023	04 Oct 2022	21 Jul 2022
Machine Hours	6393	5724	4996	3864
Oil Hours	1000	500	0	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	NORMAL	ATTENTION	ATTENTION

OIL CONDITION

Visc @ 100°C	cSt	▲ 12.3	■ 12.8	▲ 12.3	▲ 12.2
Base Number (BN)	mg KOH/g	■ 9.5	■ 7.6	■ 10.9	■ 8.7
Oxidation (PA)	%	85	57	90	90

CONTAMINATION

Soot %	%	■ 0.1	■ 0.1	■ 0.1	■ 0.1
Nitration (PA)	%	73	53	68	84
Sulfation (PA)	%	61	54	65	64
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	■ 1.1
Silicon	ppm	■ 5	■ 6	■ 5	■ 6
Sodium	ppm	■ 2	■ <1	■ <1	■ <1
Potassium	ppm	■ <1	■ 2	■ 2	■ 0

WEAR METALS

Iron	ppm	■ 5	■ 4	■ 7	■ 12
Copper	ppm	■ 3	■ <1	■ <1	■ 1
Lead	ppm	■ <1	■ <1	■ <1	■ 1
Tin	ppm	■ <1	■ <1	■ <1	■ 1
Aluminum	ppm	■ 2	■ <1	■ 3	■ 2
Chromium	ppm	■ 0	■ 0	■ 0	■ <1
Molybdenum	ppm	■ 46	■ 84	■ 43	■ 48
Nickel	ppm	■ <1	■ 0	■ 0	■ 1
Titanium	ppm	<1	0	0	0
Silver	ppm	■ 0	■ 0	■ 0	■ 0
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	■ 1794	■ 1531	■ 1693	■ 1693
Magnesium	ppm	■ 534	■ 382	■ 480	■ 472
Zinc	ppm	■ 1176	■ 1269	■ 1107	■ 1094
Phosphorus	ppm	■ 947	■ 1065	■ 911	■ 879
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 44	409	■ 30	■ 59

Diagnosis

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot: VOLVO3387
Unique No: 10562269
Signed: Jonathan Hester
Report Date: 18 Jul 2023



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GRAPHS

