



CONSTRUCTION EQUIPMENT

347205 VOLVO EC220D 2100Z1 - DIESEL ENGINE



Sample No: VCP414631
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 347205



SAMPLE INFORMATION

Sample Number	VCP414631	VCP396229	VCP350161	---
Sample Date	25 Aug 2023	09 Mar 2023	14 Feb 2022	---
Machine Hours	4594	4469	4166	---
Oil Hours	0	0	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	ABNORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	█ 12.5	█ 12.7	█ 13.6	---
Base Number (BN)	mg KOH/g	█ 10.0	█ 10.3	█ 9.4	---
Oxidation (PA)	%	74	79	81	---

CONTAMINATION

Soot %	%	█ 0.2	█ 0.3	█ 0.4	---
Nitration (PA)	%	49	63	89	---
Sulfation (PA)	%	57	60	62	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 6	█ 12	█ 16	---
Sodium	ppm	█ 1	█ 2	█ 5	---
Potassium	ppm	█ 1	█ 0	█ 2	---

WEAR METALS

Iron	ppm	█ 46	█ 80	▲ 168	---
Copper	ppm	█ <1	█ 1	█ 3	---
Lead	ppm	█ <1	█ 0	█ <1	---
Tin	ppm	█ 0	█ <1	█ <1	---
Aluminum	ppm	█ 6	█ 10	▲ 27	---
Chromium	ppm	█ 4	█ <1	█ 2	---
Molybdenum	ppm	█ 42	█ 41	█ 30	---
Nickel	ppm	█ 0	█ 0	█ <1	---
Titanium	ppm	0	0	<1	---
Silver	ppm	█ 0	█ 0	<1	---
Manganese	ppm	█ <1	█ 1	█ <1	---
Vanadium	ppm	0	<1	<1	---

ADDITIVES

Calcium	ppm	█ 1756	█ 1591	█ 1665	---
Magnesium	ppm	█ 523	█ 499	█ 630	---
Zinc	ppm	█ 1125	█ 1014	█ 1010	---
Phosphorus	ppm	█ 910	█ 816	█ 887	---
Barium	ppm	█ 0	█ 0	█ 0	---
Boron	ppm	█ 52	█ 38	█ 29	---

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.

Depot: VOLVO0093
Unique No: 10622954
Signed: Wes Davis
Report Date: 30 Aug 2023



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GRAPHS

