



CONSTRUCTION EQUIPMENT

1379 SENNEBOGEN 835E 835.0.2517 - DIESEL ENGINE



Sample No: VCP431006
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 1379



SAMPLE INFORMATION

Sample Number	VCP431006	VCP424101	VCP368424	VCP325622
Sample Date	14 Dec 2023	19 Jun 2023	23 Jan 2023	21 Jan 2022
Machine Hours	6728	5999	5445	4097
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Not Changd
Sample Status	ABNORMAL	MARGINAL	ABNORMAL	NORMAL

VCES- VOLVO CONSTRUCTION EQUIPMENT
 8594 FRUITRIDGE ROAD
 SACRAMENTO, CA
 US 95826
 Contact: RAY KRANZUSCH
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 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	▲ 11.8	■ 13.1	▲ 12.1	■ 14.8
Base Number (BN)	mg KOH/g	■ 8.5	■ 7.4	■ 5.7	■ 7.9
Oxidation (PA)	%	90	104	98	127

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	■ 0.1	■ 0.2	■ 0.2	■ 0.3
Nitration (PA)	%	79	94	98	113
Sulfation (PA)	%	63	68	70	82
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	▲ 4.9	▲ 2.1	▲ 5.0	<1.0
Silicon	ppm	■ 8	■ 6	■ 6	■ 8
Sodium	ppm	■ 2	■ 3	■ 2	■ 3
Potassium	ppm	■ 8	■ 9	■ 20	■ 30

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

WEAR METALS

Iron	ppm	■ 13	■ 12	■ 21	■ 35
Copper	ppm	■ 2	■ 2	■ 5	■ 2
Lead	ppm	■ 0	■ 0	■ 0	■ 0
Tin	ppm	■ <1	■ <1	■ <1	■ <1
Aluminum	ppm	■ 3	■ 5	■ 7	■ 16
Chromium	ppm	■ <1	■ <1	■ <1	■ <1
Molybdenum	ppm	■ 48	■ 50	■ 60	■ 49
Nickel	ppm	■ <1	■ 0	■ 0	■ 0
Titanium	ppm	3	4	10	3
Silver	ppm	■ 0	■ 0	■ 0	■ 0
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	0	0	<1	0

ADDITIVES

Calcium	ppm	■ 1586	■ 1747	■ 1441	■ 1681
Magnesium	ppm	■ 528	■ 616	■ 586	■ 578
Zinc	ppm	■ 1055	■ 1138	■ 781	■ 1055
Phosphorus	ppm	■ 864	■ 894	■ 658	■ 878
Barium	ppm	■ 9	■ 0	■ 0	■ 0
Boron	ppm	■ 71	■ 80	■ 100	■ 70

Depot: VOLVO4485
Unique No: 10805962
Signed: Wes Davis
Report Date: 29 Dec 2023



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GRAPHS

