



CONSTRUCTION EQUIPMENT

JOHN DEERE 650K 392448 - DIESEL ENGINE



Sample No: VCP446512
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP446512	VCP420593	---	---
Sample Date	17 May 2024	28 Jul 2023	---	---
Machine Hours	3273	2582	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	SEVERE	ABNORMAL	---	---

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 5151 DR MARTIN LUTHER KING BLVD
 FORT MYERS, FL
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OIL CONDITION

Visc @ 100°C	cSt	█ 14.8	█ 14.8	---	---
Base Number (BN)	mg KOH/g	█ 6.8	█ 6.4	---	---
Oxidation (PA)	%	█ 116	█ 94	---	---



CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	█ 1.3	█ 0.9	---	---
Nitration (PA)	%	█ 121	█ 105	---	---
Sulfation (PA)	%	█ 79	█ 66	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	█ <1.0	█ <1.0	---	---
Silicon	ppm	█ 14	█ 11	---	---
Sodium	ppm	█ 4	█ 5	---	---
Potassium	ppm	█ 4	█ 2	---	---



WEAR METALS

Iron	ppm	▲ 85	▲ 66	---	---
Copper	ppm	▲ 38	▲ 38	---	---
Lead	ppm	▲ 124	▲ 99	---	---
Tin	ppm	▲ 4	█ 3	---	---
Aluminum	ppm	█ 10	█ 7	---	---
Chromium	ppm	█ 3	█ 2	---	---
Molybdenum	ppm	█ 75	█ 70	---	---
Nickel	ppm	█ 2	█ 1	---	---
Titanium	ppm	2	2	---	---
Silver	ppm	█ <1	█ <1	---	---
Manganese	ppm	█ 2	█ 2	---	---
Vanadium	ppm	<1	<1	---	---



ADDITIVES

Calcium	ppm	█ 2024	█ 2007	---	---
Magnesium	ppm	█ 602	█ 617	---	---
Zinc	ppm	█ 1340	█ 1338	---	---
Phosphorus	ppm	█ 1060	█ 988	---	---
Barium	ppm	█ 0	█ 0	---	---
Boron	ppm	█ 15	█ 13	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Cylinder, crank, or cam shaft wear is indicated. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil.

Depot: VOLVO0090
Unique No: 11035302
Signed: Sean Felton
Report Date: 21 May 2024



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GRAPHS

