



CONSTRUCTION EQUIPMENT

UNITED RENTALS TAKEUCHI TB290 185105689 - DIESEL ENGINE



Sample No: VCP421364
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: UNITED RENTALS



SAMPLE INFORMATION

Sample Number	VCP421364	---	---	---
Sample Date	06 Nov 2023	---	---	---
Machine Hours	3597	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

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OIL CONDITION

Visc @ 100°C	cSt	▲ 18.3	---	---	---
Base Number (BN)	mg KOH/g	■ 10.4	---	---	---
Oxidation (PA)	%	161	---	---	---

CONTAMINATION

Soot %	%	■ 1.7	---	---	---
Nitration (PA)	%	170	---	---	---
Sulfation (PA)	%	96	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	▲ 60	---	---	---
Sodium	ppm	■ 3	---	---	---
Potassium	ppm	■ <1	---	---	---

WEAR METALS

Iron	ppm	▲ 196	---	---	---
Copper	ppm	■ 8	---	---	---
Lead	ppm	■ 1	---	---	---
Tin	ppm	■ <1	---	---	---
Aluminum	ppm	▲ 37	---	---	---
Chromium	ppm	■ 12	---	---	---
Molybdenum	ppm	■ 69	---	---	---
Nickel	ppm	■ 2	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 2	---	---	---
Vanadium	ppm	0	---	---	---

ADDITIVES

Calcium	ppm	■ 2306	---	---	---
Magnesium	ppm	■ 605	---	---	---
Zinc	ppm	■ 1751	---	---	---
Phosphorus	ppm	■ 1356	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 10	---	---	---

Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Cylinder, crank, or cam shaft wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Depot: VOLVO0090
Unique No: 10737065
Signed: Don Baldrige
Report Date: 13 Nov 2023



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GRAPHS

