



CONSTRUCTION EQUIPMENT

VOLVO SD115B 236554 - DIESEL ENGINE



Sample No: VCP414211
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP414211	VCP386103	VCP350271	VCP313196
Sample Date	31 Jul 2023	13 Sep 2022	01 Feb 2022	17 Jun 2021
Machine Hours	5182	4714	4168	3705
Oil Hours	0	500	500	500
Oil Changed	Changed	Changed	N/A	Changed
Sample Status	ABNORMAL	NORMAL	ABNORMAL	ATTENTION

RIPA AND ASSOCIATES

10149 FISHER AVENUE
 TAMPA, FL
 US 33619
 Contact: PM Services
 PMServices@ripaconstruction.com
 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	▲ 11.7	■ 12.6	▲ 11.2	▲ 11.6
Base Number (BN)	mg KOH/g	■ 9.2	■ 11.1	■ 7.7	---
Oxidation (PA)	%	78	82	69	79



CONTAMINATION

Water	%	---	---	---	■ 0.119
Soot %	%	■ 0.5	■ 0.6	■ 0.2	■ 1
Nitration (PA)	%	81	86	75	92
Sulfation (PA)	%	58	62	59	62
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	▲ 6.8	<1.0	<1.0	▲ 3.9
Silicon	ppm	■ 9	■ 19	▲ 33	■ 5
Sodium	ppm	■ 0	■ 2	■ <1	■ 2
Potassium	ppm	■ 4	■ 3	■ 5	■ 2



WEAR METALS

Iron	ppm	■ 29	■ 36	■ 22	■ 20
Copper	ppm	■ 3	■ 5	▲ 323	■ 3
Lead	ppm	■ <1	■ <1	■ <1	■ <1
Tin	ppm	■ 1	■ 2	■ 3	■ 1
Aluminum	ppm	■ 8	■ 4	■ 3	■ <1
Chromium	ppm	■ 3	■ 4	■ <1	■ 2
Molybdenum	ppm	■ 36	■ 42	■ 58	■ 53
Nickel	ppm	■ <1	■ 0	■ 2	■ <1
Titanium	ppm	■ 18	9	2	<1
Silver	ppm	■ 0	0	1	0
Manganese	ppm	■ <1	■ <1	■ 5	■ <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 1490	■ 1549	■ 1818	■ 1296
Magnesium	ppm	■ 487	■ 589	■ 378	755
Zinc	ppm	■ 1083	■ 1156	■ 1262	■ 1108
Phosphorus	ppm	■ 896	■ 961	■ 1048	■ 950
Barium	ppm	■ 2	■ 0	■ 0	■ 0
Boron	ppm	■ 25	■ 18	■ 60	■ 15

Diagnosis

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. 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 oil is no longer serviceable due to the presence of contaminants.

Depot: RIPTAM
Unique No: 10607039
Signed: Wes Davis
Report Date: 18 Aug 2023



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VOLVO GRAPHS

