



CONSTRUCTION EQUIPMENT

DUNNING INDUSTRIES VOLVO L120H 632616 - DIESEL ENGINE



Sample No: VCP437115
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: DUNNING INDUSTRIES



SAMPLE INFORMATION

Sample Number	VCP437115	VCP443061	VCP434063	VCP294679
Sample Date	09 Apr 2024	15 Feb 2024	07 Dec 2023	01 Apr 2021
Machine Hours	6506	6331	6218	1029
Oil Hours	250	106	1	1029
Oil Changed	Changed	Not Chngd	N/A	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	NORMAL

DUNNING INDUSTRIES
 105 BRICKYARD RD
 FARMINGTON, CT
 US 06032
 Contact: Service Manager
 MECHANIC@DUNNINGINDUSTRIES.COM
 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	11.5	11.9	13.4	13.7
Base Number (BN)	mg KOH/g	9.0	7.4	9.9	---
Oxidation (PA)	%	75	60	69	62



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.2	0.1	0.2
Nitration (PA)	%	49	53	46	75
Sulfation (PA)	%	59	55	56	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	0.3	<1.0	<1.0
Silicon	ppm	33	25	8	4
Sodium	ppm	9	9	4	0
Potassium	ppm	13	7	2	2



WEAR METALS

Iron	ppm	11	6	6	16
Copper	ppm	11	5	<1	8
Lead	ppm	1	0	0	<1
Tin	ppm	4	2	0	1
Aluminum	ppm	4	3	6	20
Chromium	ppm	<1	<1	<1	2
Molybdenum	ppm	40	33	51	6
Nickel	ppm	<1	0	0	0
Titanium	ppm	<1	0	0	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	1	<1	0	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1695	1536	1603	1429
Magnesium	ppm	431	376	446	709
Zinc	ppm	1077	905	1132	871
Phosphorus	ppm	948	832	946	773
Barium	ppm	0	0	0	<1
Boron	ppm	59	53	63	81

Diagnosis

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot: DUNFAR
Unique No: 10978449
Signed: Sean Felton
Report Date: 17 Apr 2024



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GRAPHS

