



CONSTRUCTION EQUIPMENT

224970 IAA VOLVO L90H 624597 - DIESEL ENGINE



Sample No: VCP403268
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 224970 IAA



SAMPLE INFORMATION

Sample Number	VCP403268	VCP371200	VCP344834	VCP305090
Sample Date	29 Jun 2023	11 Jun 2023	24 Jan 2022	21 May 2021
Machine Hours	6547	0	3876	3030
Oil Hours	200	0	0	500
Oil Changed	Changed	N/A	Changed	Changed
Sample Status	ABNORMAL	SEVERE	ABNORMAL	NORMAL



PACWEST MACHINERY
 8207 SOUTH 216TH STREET
 KENT, WA
 US 98032
 Contact: DAN SLAGLE
 dslagle@pacwestmachinery.com
 T: (206)482-4179
 F: (509)534-5286



OIL CONDITION

Visc @ 100°C	cSt	13.1	13.1	13.0	13.4
Base Number (BN)	mg KOH/g	10.7	10.1	10.5	---
Oxidation (PA)	%	79	88	103	92



CONTAMINATION

Soot %	%	0.4	1.2	1.5	0.4
Nitration (PA)	%	59	87	108	83
Sulfation (PA)	%	62	69	75	66
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	44	169	25	6
Sodium	ppm	5	18	0	4
Potassium	ppm	1	6	1	1



WEAR METALS

Iron	ppm	51	230	39	14
Copper	ppm	2	10	2	2
Lead	ppm	<1	<1	<1	<1
Tin	ppm	1	4	2	1
Aluminum	ppm	13	56	10	5
Chromium	ppm	7	25	3	1
Molybdenum	ppm	39	41	43	38
Nickel	ppm	2	8	0	<1
Titanium	ppm	1	4	<1	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	3	1	<1
Vanadium	ppm	<1	<1	0	<1



ADDITIVES

Calcium	ppm	1509	1728	1857	1737
Magnesium	ppm	556	491	560	560
Zinc	ppm	1048	1073	1037	1133
Phosphorus	ppm	867	853	995	938
Barium	ppm	0	0	<1	0
Boron	ppm	38	29	31	46

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. Resample at the next service interval to monitor. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Depot: VOLVO1271
Unique No: 10551683
Signed: Don Baldrige
Report Date: 13 Jul 2023



CONSTRUCTION EQUIPMENT



GRAPHS

