



CONSTRUCTION EQUIPMENT

SW-29071-2 LKQ VOLVO L90H 624750 - DIESEL ENGINE



Sample No: VCP439400
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-29071-2 LKQ



SAMPLE INFORMATION

Sample Number	VCP439400	VCP412477	VCP419276	VCP402804
Sample Date	31 Jan 2024	26 Sep 2023	20 Jun 2023	10 Mar 2023
Machine Hours	6590	6011	5496	4997
Oil Hours	530	500	500	300
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ARNOLD MACHINERY COMPANY
 2975 WEST 2100 SOUTH
 SALT LAKE CITY, UT
 US 84119
 Contact: TONY PAYAN
 tpayan@arnoldmachinery.com
 T: (801)972-4000
 F: (801)975-9434



OIL CONDITION

Visc @ 100°C	cSt	13.7	13.4	13.2	13.8
Base Number (BN)	mg KOH/g	8.3	10.0	10.1	10.1
Oxidation (PA)	%	57	57	61	59

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.6	0.5	0.5	0.4
Nitration (PA)	%	65	53	58	52
Sulfation (PA)	%	53	53	55	54
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	3	3	3
Sodium	ppm	0	<1	1	0
Potassium	ppm	2	0	<1	1



WEAR METALS

Iron	ppm	14	7	8	9
Copper	ppm	2	<1	<1	1
Lead	ppm	1	<1	0	0
Tin	ppm	1	<1	<1	<1
Aluminum	ppm	4	0	2	3
Chromium	ppm	1	<1	<1	<1
Molybdenum	ppm	70	62	61	59
Nickel	ppm	1	0	0	0
Titanium	ppm	<1	0	0	0
Silver	ppm	<1	0	0	0
Manganese	ppm	1	<1	<1	<1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	1391	1095	1077	1172
Magnesium	ppm	740	1020	939	848
Zinc	ppm	1304	1293	1255	1147
Phosphorus	ppm	1033	1046	1012	960
Barium	ppm	0	0	0	0
Boron	ppm	30	<1	9	11

Depot: VOLVO8770
Unique No: 10869643
Signed: Wes Davis
Report Date: 07 Feb 2024

VOLVO **GRAPHS**

