



CONSTRUCTION EQUIPMENT

TRANSYSTEMS VOLVO L220H 2432 - DIESEL ENGINE



Sample No: VCP431048
Oil Type: MOBIL 15W40
Job No: TRANSYSTEMS



SAMPLE INFORMATION

Sample Number	VCP431048	VCP429833	VCP371237	VCP371225
Sample Date	20 Feb 2024	01 Dec 2023	14 Feb 2023	09 Jan 2023
Machine Hours	16592	16092	15438	14949
Oil Hours	0	0	0	0
Oil Changed	N/A	Changed	Changed	N/A
Sample Status	MARGINAL	ABNORMAL	NORMAL	NORMAL

ARNOLD MACHINERY COMPANY
 464 WASHINGTON STREET S
 TWIN FALLS, ID
 US 83301
 Contact: JANA E HYMAS
 jhymas@arnoldmachinery.com
 T: (208)733-1715
 F: (775)356-7152

OIL CONDITION

Visc @ 100°C	cSt	12.3	12.6	12.8	12.8
Base Number (BN)	mg KOH/g	8.3	8.6	8.6	9.2
Oxidation (PA)	%	57	57	61	57

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.4	0.4	0.3	0.3
Nitration (PA)	%	61	58	64	56
Sulfation (PA)	%	53	53	53	53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	0.1	<1.0	<1.0	<1.0
Silicon	ppm	3	11	3	6
Sodium	ppm	<1	8	0	0
Potassium	ppm	0	21	2	1

WEAR METALS

Iron	ppm	6	72	4	6
Copper	ppm	▲ 38	▲ 35	1	2
Lead	ppm	<1	0	<1	1
Tin	ppm	0	4	<1	<1
Aluminum	ppm	2	16	2	2
Chromium	ppm	0	2	0	<1
Molybdenum	ppm	62	44	71	60
Nickel	ppm	2	<1	0	<1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	8	<1	<1
Vanadium	ppm	0	0	0	<1

ADDITIVES

Calcium	ppm	1147	1670	1155	1223
Magnesium	ppm	934	560	720	932
Zinc	ppm	1164	951	1020	1318
Phosphorus	ppm	1016	774	842	989
Barium	ppm	0	0	0	0
Boron	ppm	8	31	23	12

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. Fuel content negligible. No other contaminants were detected in the oil. 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: VOLVO1835
Unique No: 10899518
Signed: Doug Bogart
Report Date: 29 Feb 2024



CONSTRUCTION EQUIPMENT



GRAPHS

