

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 120737-1216 - Diesel Engine

Sample No: LH0173873

Oil Type: CHEVRON URSA SUPER PLUS EC 15W40



STAIMAN RECYCLING

201 HEPBURN ST
WILLIAMSPORT, PA
US 17701

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F:

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 condition of the oil is acceptable for the time in service.



SAMPLE INFORMATION

Sample Number	LH0173873	LHMC110889	LH0173871	LH0173870
Sample Date	20 May 2021	15 Apr 2021	06 Mar 2021	30 Jan 2021
Machine Hours	2352	2044	1713	1427
Oil Hours	308	331	286	369
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL



OIL CONDITION

Visc @ 100°C	cSt	13.0	13.2	13.1	13.2
Oxidation (PA)	%	59	63	60	63



CONTAMINATION

Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	56	59	54	58
Sulfation (PA)	%	59	60	59	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	7	8	8
Sodium	ppm	3	2	2	2
Potassium	ppm	<1	<1	4	12



WEAR METALS

Iron	ppm	3	4	4	4
Copper	ppm	2	5	21	94
Lead	ppm	<1	<1	1	<1
Tin	ppm	<1	<1	0	0
Aluminum	ppm	0	1	2	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	86	86	84	93
Nickel	ppm	0	<1	0	<1
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	2	0	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1288	1423	1435	1477
Magnesium	ppm	372	405	412	444
Zinc	ppm	1117	1231	1176	1095
Phosphorus	ppm	945	1034	1009	965
Barium	ppm	<1	0	0	<1
Boron	ppm	535	417	407	368

Depot: STAWILLH

Unique No: 9537724

Signed: Aaron Black

Report Date: 10 Jun 2021



GRAPHS

