

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH80 124551 - Diesel Engine

Sample No: LH0191228

Oil Type: MOBIL 15W40



SAMPLE INFORMATION

Sample Number	LH0191228	LH0191229	LH0191226	LH0243770
Sample Date	30 Oct 2023	17 Sep 2023	25 Aug 2023	03 Aug 2023
Machine Hours	9347	8867	8647	8381
Oil Hours	480	220	266	235
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.4	13.8	13.6	13.8
Base Number (BN)	mg KOH/g	7.8	8.7	8.5	9.3
Oxidation (PA)	%	60	52	52	57



CONTAMINATION

Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	72	60	59	52
Sulfation (PA)	%	55	52	50	49
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	7	6	7	6
Sodium	ppm	1	2	2	1
Potassium	ppm	5	3	4	4

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.



WEAR METALS

Iron	ppm	4	2	5	3
Copper	ppm	3	<1	1	<1
Lead	ppm	<1	0	0	<1
Tin	ppm	0	0	<1	0
Aluminum	ppm	2	0	5	1
Chromium	ppm	<1	<1	<1	0
Molybdenum	ppm	16	18	26	61
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1184	1289	1206	1210
Magnesium	ppm	728	854	828	1030
Zinc	ppm	1165	1283	1216	1363
Phosphorus	ppm	1018	1075	1024	1088
Barium	ppm	5	0	0	0
Boron	ppm	45	59	39	2

Depot: NUCOR
 Unique No: 10729280
 Signed: Wes Davis
 Report Date: 08 Nov 2023



GRAPHS

