

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH60M 145111-1217 - Diesel Engine

Sample No: LH0296540

Oil Type: DIESEL ENGINE OIL SAE 40



RAM IRON AND METAL

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Sample Information

Sample Number	LH0296540	LH0285010	LH0261759	LH0266083
Sample Date	07 Jul 2024	12 Feb 2024	06 Sep 2023	20 Jun 2023
Machine Hours	4008	2972	2048	1188
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



Oil Condition

Visc @ 100°C	cSt	13.2	13.4	12.6	12.8
Oxidation (PA)	%	84	73	92	100



Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	87	82	85	84
Sulfation (PA)	%	58	53	67	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	7	7	7
Sodium	ppm	2	1	2	2
Potassium	ppm	1	1	6	2



Wear Metals

Iron	ppm	5	4	7	7
Copper	ppm	2	2	9	65
Lead	ppm	0	<1	1	4
Tin	ppm	0	0	<1	<1
Aluminum	ppm	2	2	2	1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	58	56	58	57
Nickel	ppm	0	<1	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	1001	1053	1040	1091
Magnesium	ppm	952	943	962	971
Zinc	ppm	1199	1181	1142	1130
Phosphorus	ppm	983	1014	972	972
Barium	ppm	<1	0	<1	4
Boron	ppm	4	<1	2	8

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.

Depot: RAMTOR
Unique No: 5811717
Signed: Wes Davis
Report Date: 08 Jul 2024



Graphs

