

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L586 1334-47604 - Diesel Engine

Sample No: LHMC163505

Oil Type: LIEBHERR MOTOROIL 10W-40 LOW ASH



SAMPLE INFORMATION

Sample Number	LHMC163505	LH0244223	LH0185404	LH0185398
Sample Date	16 Sep 2023	05 May 2023	09 Jan 2023	30 Nov 2022
Machine Hours	6599	6033	5778	5550
Oil Hours	535	0	250	550
Oil Changed	Not Changd	Changed	N/A	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

GENESEE AGGREGATES

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OIL CONDITION

Visc @ 100°C	cSt	● 13.0	● 12.3	● 12.7	● 12.8
Base Number (BN)	mg KOH/g	● 6.7	● 6.2	● 6.8	● 7.7
Oxidation (PA)	%	● 57	● 68	● 60	● 61



CONTAMINATION

Soot %	%	● 0.1	● 0.2	● 0.1	● 0.1
Nitration (PA)	%	● 73	● 85	● 76	● 79
Sulfation (PA)	%	● 54	● 61	● 56	● 58
Glycol	%	● NEG	● NEG	● NEG	● NEG
Fuel	%	● <1.0	● 1.3	● <1.0	● <1.0
Silicon	ppm	● 7	● 7	● 7	● 7
Sodium	ppm	● 2	● 3	● 3	● <1
Potassium	ppm	● 2	● 6	● 4	● 5

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	● 11	● 8	● 7	● 11
Copper	ppm	● 3	● 3	● 2	● 2
Lead	ppm	● <1	● 2	● 1	● <1
Tin	ppm	● <1	● <1	● <1	● <1
Aluminum	ppm	● 0	● <1	● 2	● 3
Chromium	ppm	● 1	● 0	● <1	● 1
Molybdenum	ppm	● 18	● 6	● 7	● 8
Nickel	ppm	● <1	● 0	● <1	● 0
Titanium	ppm	● 60	● 46	● 51	● 54
Silver	ppm	● <1	● 0	● <1	● <1
Manganese	ppm	● <1	● <1	● <1	● <1
Vanadium	ppm	● 1	● 0	● <1	● <1



ADDITIVES

Calcium	ppm	● 1266	● 1363	● 1342	● 1387
Magnesium	ppm	● 731	● 648	● 679	● 639
Zinc	ppm	● 1116	● 1024	● 1020	● 1029
Phosphorus	ppm	● 914	● 830	● 856	● 881
Barium	ppm	● 0	● 0	● 0	● 0
Boron	ppm	● 52	● 40	● 67	● 82

Depot: GENMILLH
Unique No: 10673387
Signed: Wes Davis
Report Date: 03 Oct 2023

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GRAPHS

