

LIEBHERR

CONSTRUCTION EQUIPMENT



SENNEBOGEN 830E MS17 - Diesel Engine

Sample No: LHMC79957

Oil Type: DIESEL ENGINE OIL SAE 15W40



SAMPLE INFORMATION

Sample Number	LHMC79957	LHMC103187	LHMC103979	LHMC103759
Sample Date	23 Aug 2023	05 May 2023	20 Feb 2023	20 Oct 2022
Machine Hours	6878	6853	5898	0
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.6	13.6	13.1	13.6
Base Number (BN)	mg KOH/g	7.2	7.8	7.4	8.6
Oxidation (PA)	%	69	64	73	71



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.3	0.3	0.3
Nitration (PA)	%	80	69	80	78
Sulfation (PA)	%	57	55	59	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	3	3	3
Sodium	ppm	3	2	2	1
Potassium	ppm	5	1	<1	0



WEAR METALS

Iron	ppm	13	13	17	13
Copper	ppm	<1	<1	<1	<1
Lead	ppm	<1	0	0	0
Tin	ppm	2	0	0	0
Aluminum	ppm	3	<1	1	<1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	58	58	61	54
Nickel	ppm	0	0	0	0
Titanium	ppm	3	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	<1



ADDITIVES

Calcium	ppm	1154	1223	1208	1223
Magnesium	ppm	943	948	958	919
Zinc	ppm	1313	1308	1310	1319
Phosphorus	ppm	1012	1028	1011	983
Barium	ppm	<1	0	<1	0
Boron	ppm	10	8	10	2

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.

Depot: OSCLAF
 Unique No: 10833219
 Signed: Wes Davis
 Report Date: 17 Jan 2024



GRAPHS

