

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH80M 1218-157090 - Diesel Engine

Sample No: LH0282869
 Oil Type: DIESEL ENGINE OIL SAE 15W40



KINDER MORGAN
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 TRINITY, AL
 US 35601
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Sample Information

Sample Number	LH0282869	LH0282894	LH0280580	---
Sample Date	28 Mar 2024	19 Mar 2024	28 Feb 2024	---
Machine Hours	711	545	231	---
Oil Hours	205	0	0	---
Oil Changed	Not Changd	Changed	Not Changd	---
Sample Status	NORMAL	ABNORMAL	NORMAL	---



Oil Condition

Visc @ 100°C	cSt	● 12.6	● 12.2	● 12.1	---
Base Number (BN)	mg KOH/g	● 7.4	● 4.6	● 6.1	---
Oxidation (PA)	%	80	186	197	---



Contamination

Water	%	NEG	NEG	NEG	---
Soot %	%	● 0.1	● 0.1	● 0.1	---
Nitration (PA)	%	59	92	86	---
Sulfation (PA)	%	64	102	107	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	● 1.0	---
Silicon	ppm	● 8	● 11	● 8	---
Sodium	ppm	● 1	● 0	● <1	---
Potassium	ppm	● 3	● 3	● <1	---



Wear Metals

Iron	ppm	● 3	● 10	● 6	---
Copper	ppm	● 39	● 218	● 32	---
Lead	ppm	● 0	● 2	● 2	---
Tin	ppm	● 0	● 2	● <1	---
Aluminum	ppm	● 3	● 2	● 2	---
Chromium	ppm	● <1	● 1	● <1	---
Molybdenum	ppm	● 78	● 52	● 50	---
Nickel	ppm	● 0	● <1	● 0	---
Titanium	ppm	● 0	● <1	● 0	---
Silver	ppm	● 0	● 0	● 0	---
Manganese	ppm	● 0	● 1	● <1	---
Vanadium	ppm	0	<1	0	---



Additives

Calcium	ppm	● 1351	● 1329	● 1433	---
Magnesium	ppm	● 455	● 804	● 948	---
Zinc	ppm	● 1157	● 939	● 941	---
Phosphorus	ppm	● 1036	● 831	● 827	---
Barium	ppm	● 0	● 22	● 22	---
Boron	ppm	● 348	● 143	● 116	---

Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. 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: KINTRI
 Unique No: 10981852
 Signed: Wes Davis
 Report Date: 18 Apr 2024



Graphs

