

LIEBHERR

CONSTRUCTION EQUIPMENT



[MARATHON] LIEBHERR HS855 184576 - Diesel Engine

Sample No: LH0296767

Oil Type: DIESEL ENGINE OIL SAE 15W40



LIEBHERR CANADA LTD.
 1015 SUTTON DRIVE
 BURLINGTON, ON
 CA L7L 5Z8
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Sample Information

Sample Number	LH0296767	LH0134224	---	---
Sample Date	27 Jun 2024	30 May 2019	---	---
Machine Hours	25032	21032	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Not Changd	---	---
Sample Status	NORMAL	NORMAL	---	---



Oil Condition

Visc @ 40°C	cSt	97.8	---	---
Visc @ 100°C	cSt	13.5	13.2	---
Viscosity Index (VI)	Scale	138	---	---
Oxidation (PA)	%	68	89	---



Contamination

Water	%	NEG	NEG	---	---
Soot %	%	0	0.3	---	---
Nitration (PA)	%	79	93	---	---
Sulfation (PA)	%	58	73	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	7	16	---	---
Sodium	ppm	12	33	---	---
Potassium	ppm	3	3	---	---



Wear Metals

Iron	ppm	8	30	---	---
Copper	ppm	<1	1	---	---
Lead	ppm	0	3	---	---
Tin	ppm	0	0	---	---
Aluminum	ppm	2	6	---	---
Chromium	ppm	0	2	---	---
Molybdenum	ppm	5	70	---	---
Nickel	ppm	<1	<1	---	---
Titanium	ppm	82	<1	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	<1	0	---	---



Additives

Calcium	ppm	1847	1432	---	---
Magnesium	ppm	384	1114	---	---
Zinc	ppm	1165	1541	---	---
Phosphorus	ppm	971	1179	---	---
Barium	ppm	<1	0	---	---
Boron	ppm	92	6	---	---

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: LIEMIS
 Unique No: 5802319
 Signed: Kevin Marson
 Report Date: 02 Jul 2024

Contact/Location: Steve Lehto - LIEMIS



Graphs

