

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH30 115841-1253 - Diesel Engine

Sample No: LH06062460

Oil Type: DIESEL ENGINE OIL SAE 15W40



**SPARTAN RECYCLING**  
 3071 HOWARD ST  
 SPARTANBURG, SC  
 US 29303  
 Contact: SERVICE MANAGER



#### SAMPLE INFORMATION

Sample Number	LH06062460	LH0235741	DJJ0011135	LH0207558
Sample Date	11 Jan 2024	28 Sep 2023	22 May 2023	22 Mar 2023
Machine Hours	11390	10707	500	9140
Oil Hours	0	0	500	2000
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	NORMAL	NORMAL



#### OIL CONDITION

Visc @ 100°C	cSt	11.9	12.4	11.6	11.3
Base Number (BN)	mg KOH/g	12.1	10.0	14.4	12.3
Oxidation (PA)	%	68	102	55	65



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	136	182	127	131
Sulfation (PA)	%	55	70	47	52
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	11	9	9
Sodium	ppm	2	2	4	2
Potassium	ppm	2	8	0	2



#### WEAR METALS

Iron	ppm	11	16	6	9
Copper	ppm	2	4	1	2
Lead	ppm	3	26	0	<1
Tin	ppm	<1	1	<1	<1
Aluminum	ppm	3	4	2	4
Chromium	ppm	<1	1	<1	<1
Molybdenum	ppm	2	1	<1	1
Nickel	ppm	0	0	0	0
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	<1	<1



#### ADDITIVES

Calcium	ppm	4813	5279	4677	4282
Magnesium	ppm	33	24	24	22
Zinc	ppm	1342	1474	1259	1158
Phosphorus	ppm	1105	1194	1092	1011
Barium	ppm	0	0	0	2
Boron	ppm	241	242	301	274

T:  
F:

#### 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: SPASPALH  
 Unique No: 10833842  
 Signed: Sean Felton  
 Report Date: 18 Jan 2024



### GRAPHS

