

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH110 1227-155752 - Swing Drive

Sample No: LH0280586

Oil Type: SAE 30W



**KINDER MORGAN**  
4301 IVERSON  
TRINITY, AL  
US 35601  
Contact: CHIP OAKES

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#### Sample Information

Sample Number	LH0280586	LH0280586	LH0280575	LH0280564
Sample Date	18 Apr 2024	19 Mar 2024	20 Feb 2024	11 Jan 2024
Machine Hours	1980	1544	1022	507
Oil Hours	0	0	0	0
Oil Changed	Changed	Not Changd	Changed	Not Changd
Sample Status	ATTENTION	ATTENTION	ATTENTION	NORMAL



#### Oil Condition

Visc @ 40°C	cSt	175	176	179	180



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	5	6	7	5
Sodium	ppm	2	3	3	4
Potassium	ppm	<1	2	<1	2



#### Wear Metals

Iron	ppm	182	265	297	203
Copper	ppm	116	118	119	67
Lead	ppm	1	<1	1	<1
Tin	ppm	10	11	8	5
Aluminum	ppm	1	2	1	1
Chromium	ppm	<1	1	<1	<1
Molybdenum	ppm	0	1	0	0
Nickel	ppm	0	<1	0	<1
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	2	2	2	2
Vanadium	ppm	0	<1	<1	0



#### Additives

Calcium	ppm	96	98	119	46
Magnesium	ppm	<1	0	<1	2
Zinc	ppm	53	45	39	16
Phosphorus	ppm	2154	2091	2188	1879
Barium	ppm	3	1	3	4
Boron	ppm	6	9	6	5

#### Diagnosis

The oil change at the time of sampling has been noted. 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 oil viscosity is higher than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.

**Depot:** KINTRI  
**Unique No:** 11031833  
**Signed:** Don Baldrige  
**Report Date:** 17 May 2024



### Graphs

