

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH110 1227-155752 - Front Right Wheel Hub

Sample No: LH0280588

Oil Type: GEAR OIL SAE 80W90



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

T: (256)350-0006
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Sample Information

Sample Number	LH0280588	LH0280588	LH0280577	LH0280566
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	NORMAL	ABNORMAL	NORMAL	NORMAL



Oil Condition

Visc @ 40°C	cSt	116	122	173	173
		●	●	●	●



Contamination

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	● 7	● 4	● 10	● 8
Sodium	ppm	● 0	● 0	● 3	● 4
Potassium	ppm	● 0	● 2	● 0	● 2



Wear Metals

Iron	ppm	● 40	● 23	● 46	● 32
Copper	ppm	● 0	● <1	● 0	● 0
Lead	ppm	● 0	● <1	● 0	● 0
Tin	ppm	● 0	● 1	● 0	● <1
Aluminum	ppm	● <1	● 1	● <1	● <1
Chromium	ppm	● <1	● <1	● 0	● 0
Molybdenum	ppm	● 2	● 2	● 0	● 0
Nickel	ppm	● 0	● <1	● 0	● <1
Titanium	ppm	● 0	● 0	● 0	● 0
Silver	ppm	● 0	● 0	● 0	● 0
Manganese	ppm	● <1	● <1	● 1	● 1
Vanadium	ppm	● 0	● <1	● <1	● 0



Additives

Calcium	ppm	● 166	● 187	● 132	● 152
Magnesium	ppm	● 0	● 6	● 0	● 3
Zinc	ppm	● 83	● 96	● 13	● 25
Phosphorus	ppm	● 450	● 427	● 1448	● 1273
Barium	ppm	● 0	● 0	● 0	● <1
Boron	ppm	● 1	● 1	● 4	● 5

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: KINTRI
Unique No: 11002921
Signed: Wes Davis
Report Date: 29 Apr 2024



Graphs

