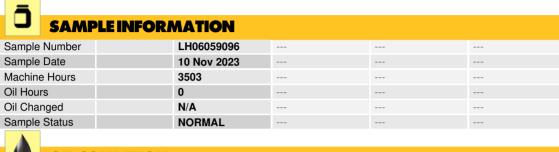
LIEBHERR

CONSTRUCTION EQUIPMENT

LIEBHERR TA230 4162 - Diesel Engine

Sample No: LH06059096

Oil Type: DIESEL ENGINE OIL SAE 15W40



Sample Status		NORMAL	 	
OILCO	NDITION			
Visc @ 100°C	cSt	12.2	 	
Base Number (BN)	mg KOH/g	7.1	 	
Oxidation (PA)	%	78	 	

CON					
CONTAMINATION					
Water	%	NEG			
Soot %	%	0.2			
Nitration (PA)	%	78			
Sulfation (PA)	%	59			
Glycol	%	NEG			
Fuel	%	0.5			
Silicon	ppm	9			
Sodium	ppm	4			
Potassium	ppm	0 <1			

WEA	R METALS			
Iron	ppm	11	 	
Copper	ppm	66	 	
Lead	ppm	0 <1	 	
Tin	ppm	0 1	 	
Aluminum	ppm	3	 	
Chromium	ppm	0 <1	 	
Molybdenum	ppm	53	 	
Nickel	ppm	2	 	
Titanium	ppm	8	 	
Silver	ppm	0 <1	 	
Manganese	ppm	2	 	
Vanadium	ppm	<1	 	

ADDITIVES						
pm (1164					
pm (935					
pm (1257					
pm (909					
pm (1					
pm (0					
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HEAVY MACHINES INC.
3930 EAST RAINES RD
MEMPHIS, TN
US 38118
Contact: J. DAVIS
JDAVIS@HEAVY.LLC.COM
T:

F: (901)260-2245

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Fuel content negligible. 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:LEC0051Unique No:10830478Signed:Wes DavisReport Date:16 Jan 2024

Contact/Location: J. DAVIS - LEC0051

LIEBHERR

CONSTRUCTION EQUIPMENT





GRAPHS

