LIEBHERR PROBLEM

PROBLEM SUMMARY

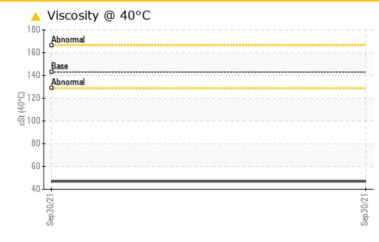
Sample Rating Trend



LIEBHERR 184-713

Component Left Hoist Fluid GEAR OIL SAE 80W90 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC T	EST RE	SULTS			
Sample Status				ATTENTION	
Visc @ 40°C	cSt	ASTM D445	143	<u> </u>	

Customer Id: LEC0033 Sample No.: LH0200474 Lab Number: 05411452 Test Package: MOBCE



To manage this report scan the QR code

To discuss the diagnosis or test data: Don Baldridge +1 <u>don.b505@comcast.net</u>

To change component or sample information: Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u> There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

LIEBHERR 184-713

Left Hoist Fluid

GEAR OIL SAE 80W90 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

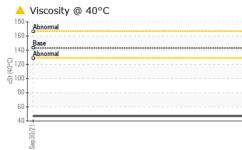
Fluid Condition

The oil viscosity is lower than normal. Confirm oil type.

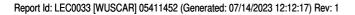
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		LH0200474		
Sample Date		Client Info		30 Sep 2021		
Machine Age	hrs	Client Info		8339		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ATTENTION		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>750	26		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>5	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		3		
Aluminum	ppm	ASTM D5185m	>5	2		
Lead	ppm	ASTM D5185m	>5	0		
Copper	ppm	ASTM D5185m	>25	<1		
Tin	ppm	ASTM D5185m	>5	0		
Antimony	ppm	ASTM D5185m		0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	400	188		
Barium	ppm	ASTM D5185m	200	0		
Molybdenum	ppm	ASTM D5185m	12	0		
Manganese	ppm	ASTM D5185m		2		
Magnesium	ppm	ASTM D5185m	12	0		
Calcium	ppm	ASTM D5185m	150	2		
Phosphorus	ppm	ASTM D5185m	1650	977		
Zinc	ppm	ASTM D5185m	125	110		
Sulfur	ppm	ASTM D5185m	22500	17251		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0		
Sodium	ppm	ASTM D5185m	>170	2		
Potassium	ppm	ASTM D5185m	>20	0		
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	VLITE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
	scalar	*Visual	NORML	NORML		
Appearance	Journa	1.00.00				
	scalar	*Visual	NORML	NORML		
Appearance Odor Emulsified Water						

LIEBHERR

OIL ANALYSIS REPORT



Visc @ 40°C		e <mark>thod limit</mark> M D445 143	t/base	current	history1	history
					history1	history
SAIVIPLE IIVIAG	EO IIIR		VDase	current	TIISTOLA	TISTOL A
Color				no image	no image	no image
				ne inage	ne mage	ne mage
Bottom				no image	no image	no image
				Lead (ppm)		
			12	Severe		
1500 - Severe			8-			
1000 - Abnormal			Mdd 6-	Abnormal		
500-			2.			
0/21		0/21	0.	0/21		
		Sep3				
Aluminum (ppm)		25	Chromium (p	pm)	
10 - Severe			20-	Severe		
Abnormal			15. Ed 10	Abnormal		
4			5.			
ol.		51	0.	51		
Sep 30/2		Sep30/2		Sep 30/2		
Copper (ppm)			40 -	Silicon (ppm)		
50 - Severe				Severe		
40 E 30				Abnormal		
20 -						
10			0-			
ep30/21		ep30/21		ep 30/21		
	C	ŏ		» Additives		
			1200 1000 -	calcium		
¹⁴⁰ T Δhnormal			800-	zinc	15	
			튼 600 - 400 -			
60 -			200-			
40		Sep30/21	0.	Sep30/21-		
Sep30/21		30		30		
	Color Bottom GRAPHS Iron (ppm) Color Abnomal Copper (ppm) Copper (ppm) Copper (ppm)	Color Bottom GRAPHS Iron (ppm) Copper (p	Color Bottom GRAPHS Iron (ppm) Aluminum (ppm)	Color Bottom GRAPHS Iron (ppm)	Color no image Bottom no image GRAPHS Iron (ppm) Iron (ppm) Lead (ppm) Iron (ppm) Iron (Color no image no image Bottom no image no image GRAPHS Tron (ppm) Aluminum (ppm) Aluminum (ppm) Copper (ppm



Contact/Location: DON FITZGERALD - LEC0033