**WEAR CONTAMINATION FLUID CONDITION**  **ABNORMAL NORMAL NORMAL** 



## Machine Id LIEBHERR L566 1758-71605

**Splitter Box** 

LIEBHERR GEAR BASIC 90 LS (--- GAL)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0277173		
Sample Date		Client Info		10 Jul 2024		
Machine Age	hrs	Client Info		2470		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		None		
Sample Status				ABNORMAL		
Iron	ppm	ASTM D5185m	>100	<u> </u>		
Chromium	ppm	ASTM D5185m	>5	<1		
Nickel	ppm	ASTM D5185m	>5	10		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>20	2		
Lead	ppm	ASTM D5185m	>30	<1		
Copper	ppm	ASTM D5185m	>20	3		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
White Metal	scalar	*Visual	NONE	MODER		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silioon	nnm	ACTM DE185m	~ 3U	2		
	ppiii					
	scalar					
Emulsified Water		*Visual	>0.1			
Sodium	ppm			6		
Boron	ppm	ASTM D5185m	0	0		
	Sample Number Sample Date Machine Age Oil Age Filter Age Oil Changed Filter Changed Sample Status  Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Vanadium White Metal Yellow Metal  Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	Sample Number Sample Date Machine Age hrs Oil Age hrs Filter Age hrs Oil Changed Filter Changed Sample Status  Iron ppm Chromium ppm Nickel ppm Titanium ppm Silver ppm Aluminum ppm Lead ppm Copper ppm Tin ppm Vanadium ppm White Metal scalar Yellow Metal scalar Silicon ppm Water Silt scalar Debris scalar Sand/Dirt scalar Appearance scalar Odor scalar Emulsified Water scalar	Sample Number Sample Date Client Info Machine Age Nrs Client Info Oil Age Nrs Client Info Client Info Client Info Client Info Oil Changed Client Info Client Info Oil Changed Client Info Client Info Client Info Client Info Sample Status  Iron ppm ASTM D5185m Chromium ppm ASTM D5185m Nickel ppm ASTM D5185m Aluminum ppm ASTM D5185m Lead ppm ASTM D5185m Copper ppm ASTM D5185m Vanadium ppm ASTM D5185m Visual Scalar *Visual Silicon ppm ASTM D5185m Vater WC Method Silt scalar *Visual Sand/Dirt scalar *Visual Appearance scalar *Visual Temulsified Water Scalar *Visual	Sample Number Sample Date Client Info Machine Age hrs Client Info Cil Age hrs Client Info Cil Age hrs Client Info Filter Changed Sample Status  Iron  ppm ASTM D5185m Nickel ppm ASTM D5185m Silver ppm ASTM D5185m Silver ppm ASTM D5185m Silver Aluminum ppm ASTM D5185m ASTM D5185m Aluminum ppm ASTM D5185m ASTM D5185m Silver ASTM D5185m Silver ASTM D5185m None Copper ppm ASTM D5185m None Vanadium ppm ASTM D5185m Vanadium ppm ASTM D5185m None Vallow Metal Scalar Visual None Silicon ppm ASTM D5185m >20 Vater Visual None Silt Scalar Visual None Sand/Dirt Scalar Visual None Sand/Dirt Scalar Appearance Scalar Visual None Sand/Dirt Scalar Appearance Scalar Visual None Sand/Dirt Appearance Scalar Visual None None Sand/Dirt Scalar Visual None None Sand/Dirt Scalar Visual None None None None None None None None	Sample Number         Client Info         LH0277173           Sample Date         Client Info         10 Jul 2024           Machine Age         hrs         Client Info         2470           Oil Age         hrs         Client Info         0           Filter Age         hrs         Client Info         0           Oil Changed         Client Info         Changed           Filter Changed         Client Info         None           Sample Status         None         ABNORMAL           Iron         ppm         ASTM D5185m         >100         157           Chromium         ppm         ASTM D5185m         >5         <1           Nickel         ppm         ASTM D5185m         >5         <1           Nickel         ppm         ASTM D5185m         >5         <1           Titanium         ppm         ASTM D5185m         >20         2           Lead         ppm         ASTM D5185m         >20         2           Lead         ppm         ASTM D5185m         >20         3           Tin         ppm         ASTM D5185m         >20         3           Tin         ppm         ASTM D5185m         >10         0 <th>Sample Number         Client Info         LH0277173            Sample Date         Client Info         10 Jul 2024            Machine Age         hrs         Client Info         2470            Oil Age         hrs         Client Info         0            Filter Age         hrs         Client Info         Changed            Filter Changed         Client Info         None            Sample Status         ABNORMAL            Iron         ppm         ASTM D5185m         &gt;100         ▲ 157            Chromium         ppm         ASTM D5185m         &gt;5         &lt;1            Nickel         ppm         ASTM D5185m         &gt;5         &lt;1            Nickel         ppm         ASTM D5185m         &gt;5         10            Titanium         ppm         ASTM D5185m         &gt;20         2            Silver         ppm         ASTM D5185m         &gt;20         2            Aluminum         ppm         ASTM D5185m         &gt;20         2            Lead         ppm</th>	Sample Number         Client Info         LH0277173            Sample Date         Client Info         10 Jul 2024            Machine Age         hrs         Client Info         2470            Oil Age         hrs         Client Info         0            Filter Age         hrs         Client Info         Changed            Filter Changed         Client Info         None            Sample Status         ABNORMAL            Iron         ppm         ASTM D5185m         >100         ▲ 157            Chromium         ppm         ASTM D5185m         >5         <1            Nickel         ppm         ASTM D5185m         >5         <1            Nickel         ppm         ASTM D5185m         >5         10            Titanium         ppm         ASTM D5185m         >20         2            Silver         ppm         ASTM D5185m         >20         2            Aluminum         ppm         ASTM D5185m         >20         2            Lead         ppm

Barium

Molybdenum

Manganese

Magnesium

Phosphorus

Visc @ 40°C

Calcium

Zinc

Sulfur

ppm

ppm

ppm

ppm

ppm

ppm

ppm

ppm

ASTM D5185m O

ASTM D5185m O

ASTM D5185m O

ASTM D5185m <1

ASTM D5185m <1

ASTM D5185m <1

ASTM D5185m 2143

ASTM D5185m 23468

ASTM D445 170

13

2

11

15

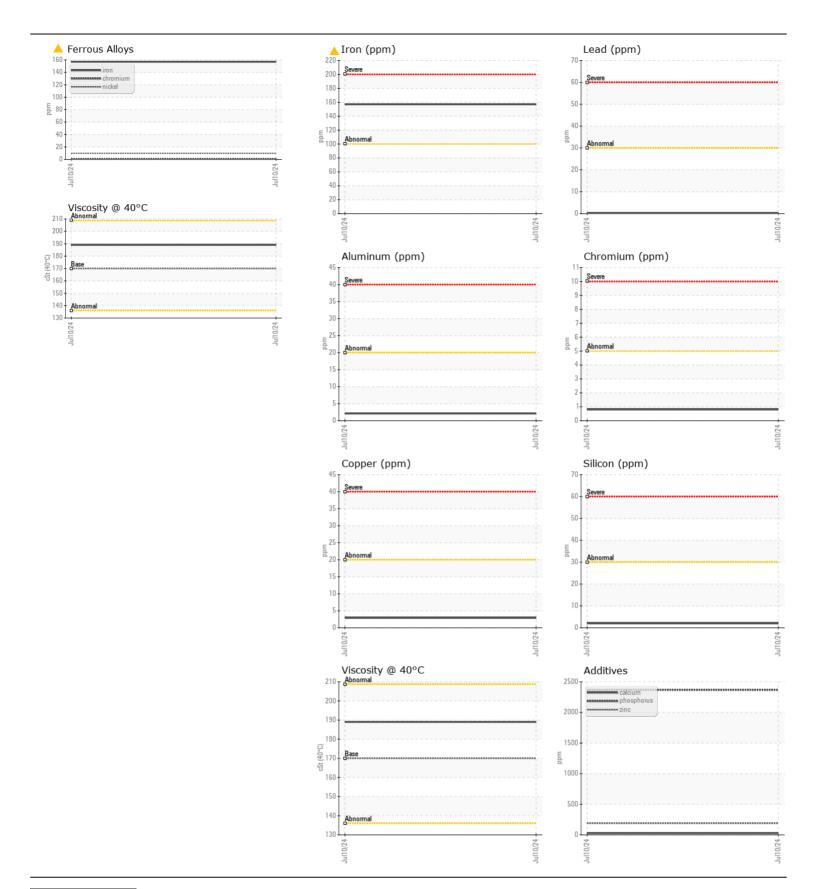
28

2368

188

189

33379





Certificate L2367

Laboratory Sample No.

**Lab Number** : 06237179 Unique Number : 11126013

: LH0277173 Test Package : MOBCE

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 15 Jul 2024 **Tested** : 17 Jul 2024

Diagnosed : 17 Jul 2024 - Don Baldridge **BARRETT/COLAS** 4800 SOLVAY RD JAMESVILLE, NY US 13078

Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T: F: