

Machine Id LIEBHERR LH30M 140292-1253 Component

Transmission (Manual)

TDTO FLUID SAE 20 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) TDTO FLUID SAE 20. Please confirm.

**WEAR** 

All component wear rates are normal.

## CONTAMINATION

There is no indication of any contamination in the fluid.

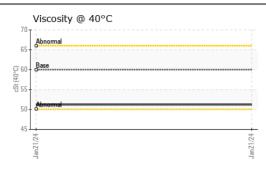
## FLUID CONDITION

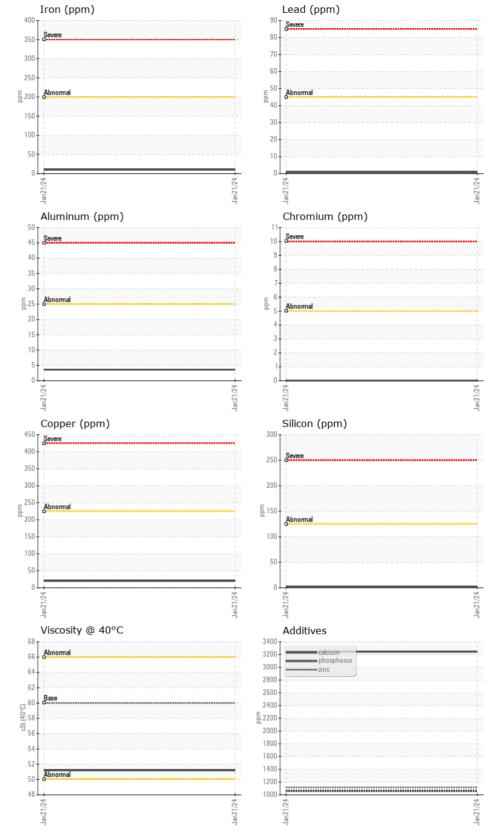
The condition of the fluid is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0278877		
Sample Date		Client Info		21 Jan 2024		
Machine Age	hrs	Client Info		1531		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		N/A		
Sample Status				NORMAL		
Iron			>200	10		
Chromium	ppm	ASTM D5185(m)		0		
Nickel	ppm	ASTM D5185(m)	>5	0 <1		
Titanium	ppm	ASTM D5185(m)	>5	<1		
Silver	ppm	ASTM D5185(m) ASTM D5185(m)	>7	0		
Aluminum	ppm			4		
Lead	ppm	ASTM D5185(m) ASTM D5185(m)	>25 >45	4 <1		
Copper	ppm	ASTM D5185(m)	>45	20		
Tin	ppm	ASTM D5185(m)	>225	20 <1		
Vanadium	ppm ppm	ASTM D5185(m)	>10	<1		
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
	Scalal	visuai				
Silicon	ppm	ASTM D5185(m)	>125	2		
Potassium	ppm	ASTM D5185(m)	>20	6		
Potassium Water	ppm	ASTM D5185(m) WC Method	>20 >0.1	6 NEG		
	ppm scalar	( <i>)</i>		-		
Water		WC Method	>0.1	NEG		
Water Silt	scalar	WC Method Visual*	>0.1 NONE	NEG NONE		
Water Silt Debris	scalar scalar	WC Method Visual* Visual*	>0.1 NONE NONE	NEG NONE NONE		
Water Silt Debris Sand/Dirt	scalar scalar scalar	WC Method Visual* Visual* Visual*	>0.1 NONE NONE NONE	NEG NONE NONE NONE		
Water Silt Debris Sand/Dirt Appearance	scalar scalar scalar scalar	WC Method Visual* Visual* Visual* Visual*	>0.1 NONE NONE NORE	NEG NONE NONE NONE NORML		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar scalar	WC Method Visual* Visual* Visual* Visual* Visual* Visual*	>0.1 NONE NONE NORML NORML	NEG NONE NONE NORML NORML NEG	  	   
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar scalar scalar scalar scalar scalar scalar	WC Method Visual* Visual* Visual* Visual* Visual* Visual*	>0.1 NONE NONE NORML NORML >0.1	NEG NONE NONE NORML NORML NEG 35	  	   
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar scalar scalar scalar scalar scalar ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>0.1 NONE NONE NORML NORML >0.1	NEG NONE NONE NORML NORML NEG 35 7		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar scalar scalar scalar ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;0.1</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.1</li> <li>37</li> <li>7</li> </ul>	NEG NONE NONE NORML NORML NEG 35 7 <1		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar scalar scalar scalar ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>0.1 NONE NONE NORML NORML >0.1	NEG NONE NONE NORML NORML NEG 35 7 <1 1		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese	scalar scalar scalar scalar scalar ppm ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>0.1 NONE NONE NORML >0.1 37 7 5	NEG NONE NONE NORML NORML NEG 35 7 <1 1 1		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;0.1</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.1</li> <li>37</li> <li>7</li> <li>5</li> <li>40</li> </ul>	NEG NONE NONE NORML NORML NEG 35 7 <1 1 1 14 9		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;0.1</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.1</li> <li>37</li> <li>37</li> <li>5</li> <li>40</li> <li>2650</li> </ul>	NEG NONE NONE NORML NORML NEG 35 7 <1 1 1 14 9 3244		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;0.1</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.1</li> <li>37</li> <li>37</li> <li>5</li> <li>40</li> <li>2650</li> <li>1050</li> </ul>	NEG NONE NONE NORML NORML NEG 35 7 <1 1 1 14 9 3244 1059		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium Phosphorus Zinc	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;0.1</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.1</li> <li>&gt;0.1</li> <li>37</li> <li>37</li> <li>5</li> <li>40</li> <li>2650</li> <li>1050</li> <li>1075</li> </ul>	NEG NONE NONE NORML NORML NEG 35 7 <1 1 14 9 3244 1059 1117		
Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;0.1</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.1</li> <li>37</li> <li>37</li> <li>5</li> <li>40</li> <li>2650</li> <li>1050</li> </ul>	NEG NONE NONE NORML NORML NEG 35 7 <1 1 1 14 9 3244 1059		

Report Id: MAR280WHI [WCAMIS] 02610328 (Generated: 01/22/2024 15:42:44) Rev: 1

Submitted By: ?







CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number Test Package : MOB 1

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Recieved : 22 Jan 2024 : LH0278877 : 22 Jan 2024 : 02610328 Diagnosed : 5711414 Diagnostician : Wes Davis

**Markham Metals** 280 Hopkins Street Whitby, ON CA L1N 2B9 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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