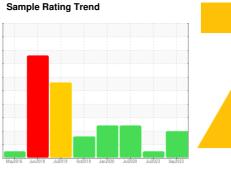


PROBLEM SUMMARY

CM31 CM31EX01-1030 (S/N 2717647)

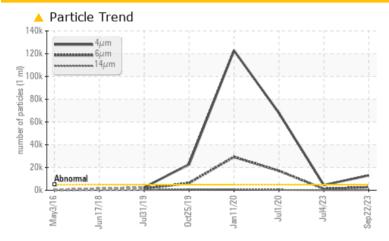
Hydraulic System

MOBIL DTE 25 (--- QTS)





COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status		ABNORMAL	NORMAL	ABNORMAL			
Particles >4µm	ASTM D7647 >5	13070	4591	<u></u> 67924			
Particles >6µm	ASTM D7647 >1	300 A 2711	1237	▲ 17087			
Particles >14µm	ASTM D7647 >1	60 △ 180	87	△ 366			
Particles >21µm	ASTM D7647 >4	.0 🔺 59	18	△ 91			
Oil Cleanliness	ISO 4406 (c) >1	9/17/14 21/19/15	19/17/14	<u>\$\Delta\$ 23/21/16</u>			

Customer Id: LEPALL Sample No.: WC0847437 Lab Number: 05966235 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:

Don Baldridge +1 don.b505@comcast.net

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter			?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

04 Jul 2023 Diag: Wes Davis





Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



01 Jul 2020 Diag: Don Baldridge

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



11 Jan 2020 Diag: Doug Bogart

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



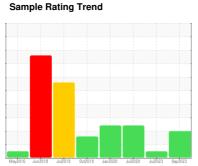


OIL ANALYSIS REPORT

CM31 CM31EX01-1030 (S/N 2717647)

Hydraulic System

MOBIL DTE 25 (--- QTS)





DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

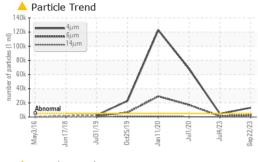
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

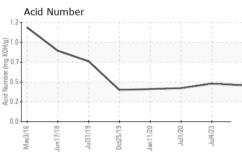
		May2016 J	un2018 Jul2019 Oct20	9 Jan2020 Jul2020 Jul2023	Sep 2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0847437	WC0823776	WC0444926
Sample Date		Client Info		22 Sep 2023	04 Jul 2023	01 Jul 2020
Machine Age	days	Client Info		0	0	0
Oil Age	days	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	0	0	<1
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>20	0	0	0
Lead	ppm	ASTM D5185m	>20	0	0	<1
Copper	ppm	ASTM D5185m	>20	<1	0	<1
Tin	ppm	ASTM D5185m	>20	0	0	0
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	<1
Barium	ppm	ASTM D5185m		0	0	<1
				^	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m		0	0	0
•						
Manganese	ppm	ASTM D5185m		0	0	0
Manganese Magnesium	ppm	ASTM D5185m ASTM D5185m		0	0	0
Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 0 74	0 0 88	0 0 81
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 74 259	0 0 88 289	0 0 81 247
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 74 259 306	0 0 88 289 322	0 0 81 247 315
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 74 259 306 723	0 0 88 289 322 866	0 0 81 247 315 593
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method		0 0 74 259 306 723	0 0 88 289 322 866 history1	0 0 81 247 315 593 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m		0 0 74 259 306 723 current	0 0 88 289 322 866 history1	0 0 81 247 315 593 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>15	0 0 74 259 306 723 current <1	0 0 88 289 322 866 history1 <1	0 0 81 247 315 593 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>15 >20	0 0 74 259 306 723 current <1 0	0 0 88 289 322 866 history1 <1 0 <1	0 0 81 247 315 593 history2 1 0
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m METHOD ASTM D5185m	>15 >20 limit/base	0 0 74 259 306 723 current <1 0 <1	0 0 88 289 322 866 history1 <1 0 <1	0 0 81 247 315 593 history2 1 0 0
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m	>15 >20 limit/base >5000	0 0 74 259 306 723 current <1 0 <1 current	0 0 88 289 322 866 history1 <1 0 <1 history1 4591	0 0 81 247 315 593 history2 1 0 0 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m	>15 >20 limit/base >5000 >1300	0 0 74 259 306 723 current <1 0 <1 current ▲ 13070 ▲ 2711	0 0 88 289 322 866 history1 <1 0 <1 history1 4591 1237	0 0 81 247 315 593 history2 1 0 0 history2 467924 17087
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160	0 0 74 259 306 723 current <1 0 <1 current ▲ 13070 ▲ 2711 ▲ 180	0 0 88 289 322 866 history1 <1 0 <1 history1 4591 1237 87	0 0 81 247 315 593 history2 1 0 0 history2 4 67924 17087 366
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40	0 0 74 259 306 723	0 0 0 88 289 322 866 history1 <1 0 <1 history1 4591 1237 87 18	0 0 81 247 315 593 history2 1 0 0 history2 ▲ 67924 ▲ 17087 ▲ 366 ▲ 91
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10	0 0 74 259 306 723	0 0 0 88 289 322 866 history1 <1 0 <1 history1 4591 1237 87 18 0	0 0 81 247 315 593 history2 1 0 0 history2 ▲ 67924 ▲ 17087 ▲ 366 ▲ 91 ▲ 26
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10 >3	0 0 74 259 306 723	0 0 0 88 289 322 866 history1 <1 0 <1 history1 4591 1237 87 18 0	0 0 81 247 315 593 history2 1 0 0 history2 67924 17087 366 91 26 16

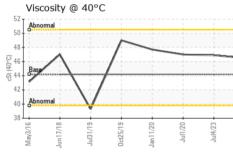


OIL ANALYSIS REPORT



Par	ticle Tre	end					
	4μm 6μm			\wedge			
120k mnp et of particles (m) 100k mnp et of particles (m) 100k mnp et of particles (mnp et of particles (m							
40k - 20k -				AND DESCRIPTION OF THE PARTY OF			
Ok	ormal		N. W.	4.5	A STATE OF THE PARTY OF THE PAR		
May3/16	Jun17/18 -	Jul31/19	0ct25/19 -	Jan11/20 -	Jul1/20 -	Jul4/23 -	Sep22/23





VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
	TIEC .	use a the seal	line it /le e e e		la la tament	history.O

I LOID I HOI LITTI		mounoa	IIIIII basc	ourrent	Thotory I	Thotol y
Visc @ 40°C	cSt	ASTM D445	44.2	46.5	46.9	47.0

SAMPLE IMAGES

method

limit/base

current

history1

history2









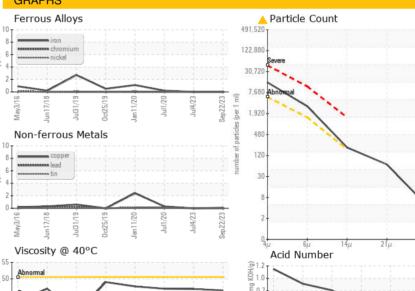
Color

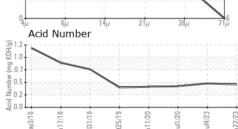
















Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0847437 : 05966235

: 10672786

Received Diagnosed Diagnostician : Don Baldridge

: 02 Oct 2023 : 03 Oct 2023

Sep22/23

Contact: BILL FERRIER BFERRIER@LEPRINOFOODS.COM

LEPRINO FOODS - ALLENDALE

4700 RICH STREET

ALLENDALE, MI

US 49401

T:

F:

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)

Report Id: LEPALL [WUSCAR] 05966235 (Generated: 10/03/2023 14:09:33) Rev: 1

Contact/Location: BILL FERRIER - LEPALL