

# **PROBLEM SUMMARY**

Sample Rating Trend



HS-13 (S/N TDSH233L2089F)

**Refrigeration Compressor** 

Refrigeration Compressor Oil (150 GAL)

**COMPONENT CONDITION SUMMARY** 

No relevant graphs to display

## RECOMMENDATION

We suspect abnormal contamination may be due to sampling method. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status				MARGINAL	NORMAL	MARGINAL	
Silt	scalar	*Visual	NONE	MODER	NONE	NONE	

Customer Id: LAMPAR **Sample No.:** WC0831583 Lab Number: 05898711 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 dougb@wearcheckusa.com

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

## **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

## HISTORICAL DIAGNOSIS

# 06 Mar 2023 Diag: Angela Borella

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The water content is negligible. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



## 08 Feb 2023 Diag: Doug Bogart

VIS DEBRIS



We suspect abnormal contamination may be due to sampling method. Resample at the next service interval to monitor. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



#### 06 Feb 2023 Diag: Don Baldridge

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The water content is negligible. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





# **OIL ANALYSIS REPORT**

Sample Rating Trend



HS-13 (S/N TDSH233L2089F)

**Refrigeration Compressor** 

Refrigeration Compressor Oil (150 GAL)

## **DIAGNOSIS**

#### Recommendation

We suspect abnormal contamination may be due to sampling method. Resample at the next service interval to monitor.

All component wear rates are normal.

## Contamination

There is a moderate amount of visible silt present in the sample. The water content is negligible.

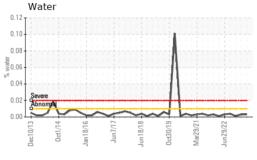
#### **Fluid Condition**

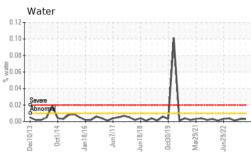
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

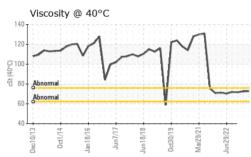
CAMPLE INCORN	AATIONI		11 11 11		1111	111
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0831583	WC0796743	WC0779563
Sample Date		Client Info		10 Jul 2023	06 Mar 2023	08 Feb 2023
Machine Age	hrs	Client Info		175829	174518	173245
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				MARGINAL	NORMAL	MARGINAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	4	2	2
Chromium	ppm	ASTM D5185m	>2	0	0	0
Nickel	ppm	ASTM D5185m		<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	<1	0	0
Lead	ppm	ASTM D5185m	>2	0	0	<1
Copper	ppm	ASTM D5185m	>8	0	0	0
Tin	ppm	ASTM D5185m	>4	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
044	ppiii	Alo Till Do Toolii		U	O	O .
ADDITIVES	ppiii	method	limit/base	current	history1	history2
	ppm		limit/base	-		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 0 2	history1 0 0	history2 0 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 2 0	history1 0 0 0	history2 0 0 0
ADDITIVES  Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 2 0	history1 0 0 0 0 0	history2 0 0 0 0
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 2 0 0 0 0	history1  0 0 0 0 0 0	history2 0 0 0 0 0 0
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium	ppm ppm ppm ppm ppm	method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	limit/base	0 2 0 0 0 0 0 0	history1 0 0 0 0 0 0 7	history2 0 0 0 0 0 0 0 0
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus	ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	0 2 0 0 0 0 0 <1	history1  0 0 0 0 0 7 9	history2 0 0 0 0 0 0 0 0 8
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	0 2 0 0 0 0 0 <1 <1 <1	history1  0 0 0 0 0 7 9 0	history2 0 0 0 0 0 0 0 0 8 0
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m		0 2 0 0 0 0 0 <1 <1 59	history1  0 0 0 0 0 7 9 0 67	history2 0 0 0 0 0 0 0 0 8 0 59
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	Current  0 2 0 0 0 0 <1 <1 59  current	history1  0 0 0 0 0 7 9 0 67 history1	history2  0 0 0 0 0 0 0 0 59 history2
ADDITIVES  Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	current  0 2 0 0 0 0 <1 <1 59 current 0	history1  0 0 0 0 0 7 9 0 67 history1 <1	history2  0 0 0 0 0 0 0 8 0 59 history2 <1
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base >15 >20	current 0 2 0 0 0 0 0 <1 <1 59 current 0 0	history1  0 0 0 0 0 7 9 0 67 history1 <1 0	history2  0 0 0 0 0 0 0 0 8 0 59 history2 <1 0
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base >15 >20	Current  0 2 0 0 0 0 0 <1 <1 59  Current  0 0 0	history1  0  0  0  0  0  7  9  0 67  history1  <1  0  1	history2  0  0  0  0  0  0  0  8  0  59  history2  <1  0  1
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base >15 >20 >0.01	Current  0 2 0 0 0 0 <1 <1 59  Current  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	history1  0  0  0  0  7  9  0 67  history1  <1  0  1  0.003	history2  0  0  0  0  0  0  0  8  0  59  history2  <1  0  1  0.001



# **OIL ANALYSIS REPORT**







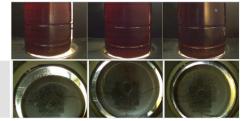
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.01	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPER	RIIES	metnoa	ilmit/base	current	nistory i	nistory
Visc @ 40°C	cSt	ASTM D445		72.8	72.6	71.7

SAMPLE IMAGES	method	limit/base	current	history1	history2

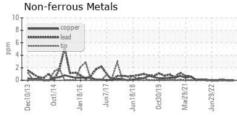
Color

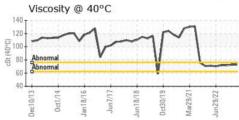


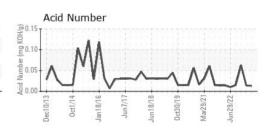


#### **GRAPHS**

Ferrous Alloys











Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** 

: WC0831583 : 05898711 : 10560067 Test Package : IND 2

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

Received : 14 Jul 2023 Diagnosed Diagnostician : Doug Bogart

: 17 Jul 2023

LAMB WESTON/RDO PO BOX 552 PARK RAPIDS, MN US 56470

Contact: MICHAEL GRUIS michael.gruis@lambweston.com

T: (218)732-2188 F: (218)732-2175

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)