



PROBLEM SUMMARY

Sample Rating Trend

WEAR



Area

8

Machine Id

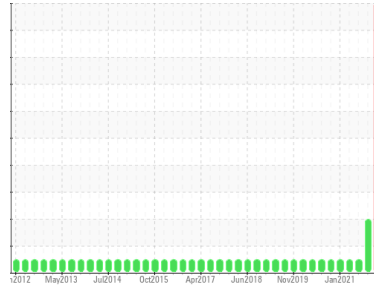
8-2-301-B FM #2 Trunion - Feed End

Component

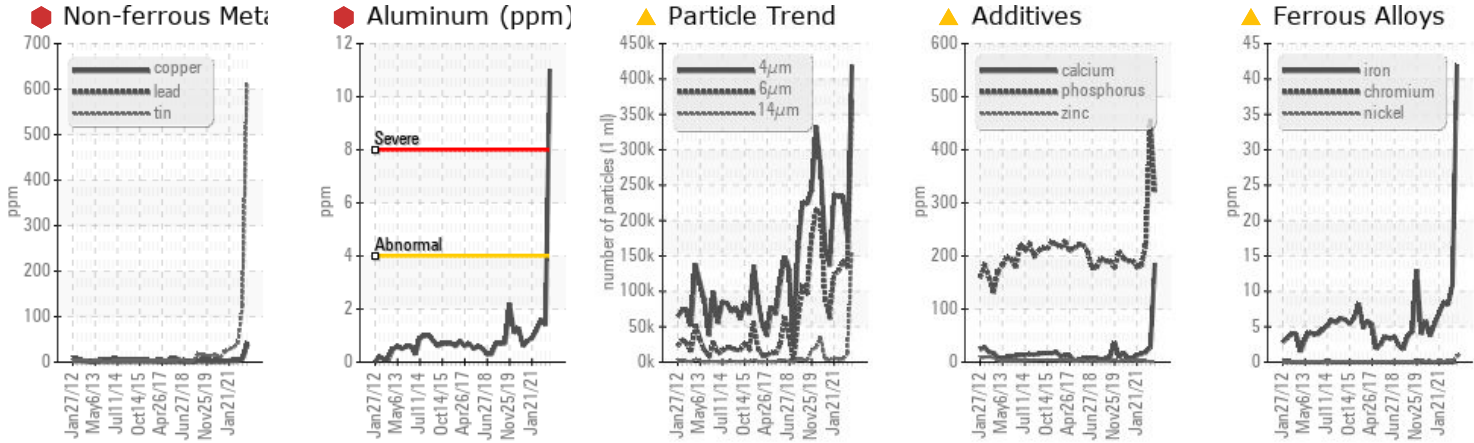
Journal Bearing

Fluid

MOBIL MOBILGEAR SHC 460 (350 LTR)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>60	▲ 42	11	8
Aluminum	ppm	ASTM D5185(m)	>4	● 11	1	2
Tin	ppm	ASTM D5185(m)	>80	● 609	▲ 124	40
Antimony	ppm	ASTM D5185(m)		▲ 83	▲ 17	4
Calcium	ppm	ASTM D5185(m)	0.0	▲ 185	28	19
Particles >6µm		ASTM D7647	>320000	▲ 373468	134046	143651
Oil Cleanliness		ISO 4406 (c)	>--/25/24	▲ 26/26/24	25/24/21	25/24/19

Customer Id: STMBOW
 Sample No.: WC
 Lab Number: 02457270
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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Bill.Quesnel@wearcheck.com

To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	MISSED	Feb 18 2022	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	MISSED	Feb 18 2022	?	Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).
Check Breathers	MISSED	Feb 18 2022	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Dirt Access	MISSED	Feb 18 2022	?	We advise that you check all areas where contaminants can enter the system.
Filter Fluid	MISSED	Feb 18 2022	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

19 Oct 2021 Diag: Kevin Marson

WEAR



Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Tin and antimony ppm levels are abnormal. A sharp increase in the tin level is noted. A sharp increase in the antimony level is noted. Bearing wear is indicated. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid.

view report



06 Jul 2021 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. 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.

view report



15 Apr 2021 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. 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.

view report





OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Area

8

Machine Id

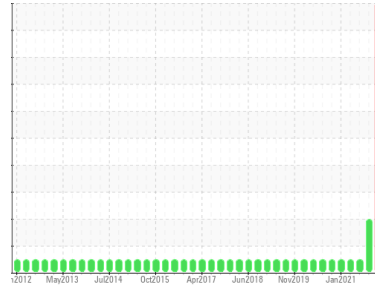
8-2-301-B FM #2 Trunion - Feed End

Component

Journal Bearing

Fluid

MOBIL MOBILGEAR SHC 460 (350 LTR)



DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).

Wear

Aluminum and tin ppm levels are severe. Antimony ppm levels are noted. Iron ppm levels are marginal. Bearing wear is indicated.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. Calcium and/or magnesium levels higher than normal indicating possible contamination with cement dust, advise investigate.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC	WC0627342	WC0600017
Sample Date	Client Info	17 Nov 2021	19 Oct 2021	06 Jul 2021
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		SEVERE	ABNORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >60	▲ 42	11	8
Chromium	ppm	ASTM D5185(m)	<1	0	0
Nickel	ppm	ASTM D5185(m)	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	<1	0	0
Silver	ppm	ASTM D5185(m)	<1	<1	<1
Aluminum	ppm	ASTM D5185(m) >4	● 11	1	2
Lead	ppm	ASTM D5185(m) >250	35	7	2
Copper	ppm	ASTM D5185(m) >125	44	8	6
Tin	ppm	ASTM D5185(m) >80	● 609	▲ 124	40
Antimony	ppm	ASTM D5185(m)	▲ 83	▲ 17	4
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 5.7	16	11	7
Barium	ppm	ASTM D5185(m) 0.0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0.0	0	0	0
Manganese	ppm	ASTM D5185(m) 0.0	<1	0	<1
Magnesium	ppm	ASTM D5185(m) 0.0	7	1	1
Calcium	ppm	ASTM D5185(m) 0.0	▲ 185	28	19
Phosphorus	ppm	ASTM D5185(m) 180	320	▲ 453	222
Zinc	ppm	ASTM D5185(m) 0.8	1	<1	2
Sulfur	ppm	ASTM D5185(m) 4270	4466	▲ 5033	4051
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >50	36	7	11
Sodium	ppm	ASTM D5185(m)	2	<1	0
Potassium	ppm	ASTM D5185(m) >20	12	2	2

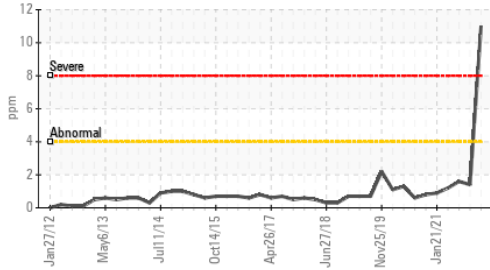
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	419095	176114	233616
Particles >6µm	ASTM D7647 >320000	▲ 373468	134046	143651
Particles >14µm	ASTM D7647 >160000	156764	12309	3985
Particles >21µm	ASTM D7647 >40000	37843	202	127
Particles >38µm	ASTM D7647 >10000	35	0	1
Particles >71µm	ASTM D7647 >2500	0	0	0
Oil Cleanliness	ISO 4406 (c) >--/25/24	▲ 26/26/24	25/24/21	25/24/19

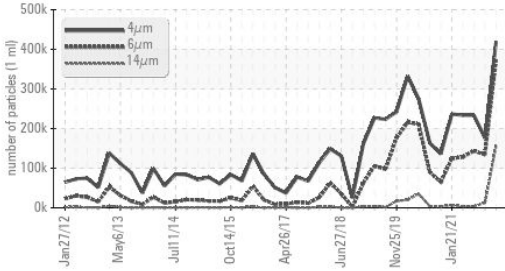
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974* 0.38	0.74	0.75	0.67

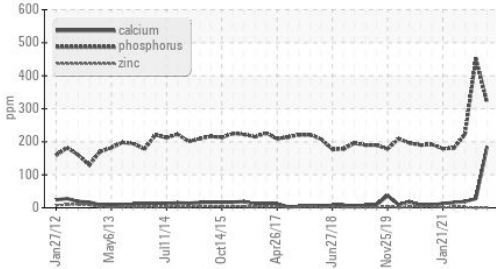
Aluminum (ppm)



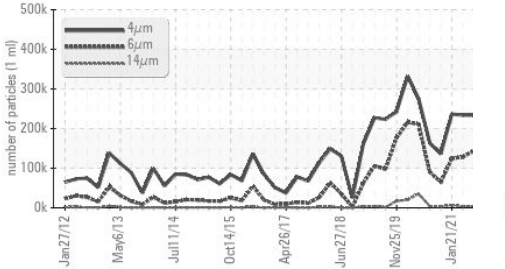
Particle Trend



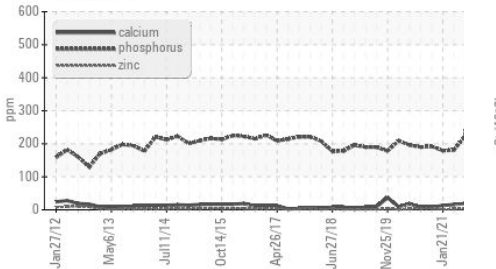
Additives



Particle Trend



Additives



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	LIGHT	VLITE
Debris	scalar	Visual*	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

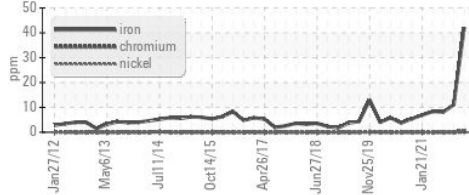
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	477	463	485

SAMPLE IMAGES	method	limit/base	current	history1	history2
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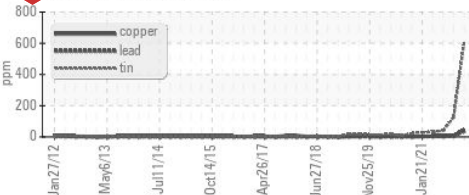


GRAPHS

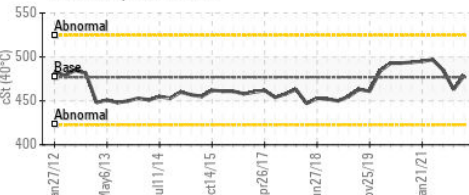
Ferrous Alloys



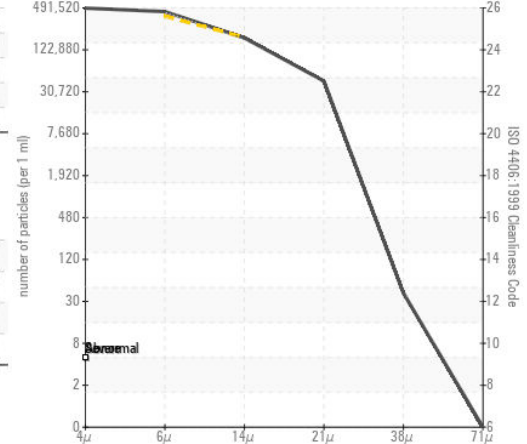
Non-ferrous Metals



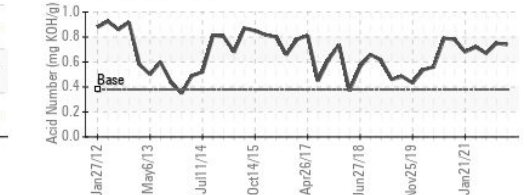
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
 Sample No. : WC
 Lab Number : 02457270
 Unique Number : 5316831
 Test Package : IND 2 (Additional Tests: TAN Man)

Received : 18 Nov 2021
 Diagnosed : 19 Nov 2021
 Diagnostician : Bill Quesnel

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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