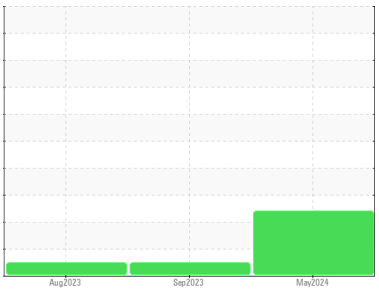
PROBLEM SUMMARY

Sample Rating Trend



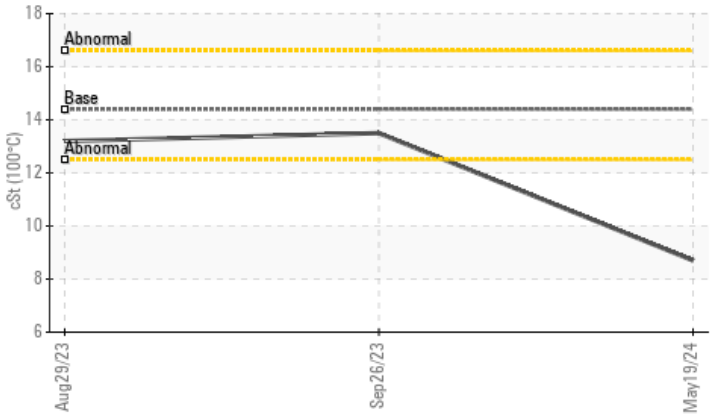
FUEL

Machine Id
F/V ARCTIC FURY (S/N 37259081)
Component
Starboard Genset
Fluid
MOBIL DELVAC MX 15W40 (--- QTS)

COMPONENT CONDITION SUMMARY

▲ Fuel Dilution

▲ Viscosity @ 100°C



RECOMMENDATION

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	NORMAL	NORMAL
Fuel	%	ASTM D3524	>4.0	▲ **26.7**	<1.0	<1.0
Visc @ 100°C	cSt	ASTM D445	14.4	▲ **8.7**	13.5	13.2

Customer Id: FURSEA
Sample No.: PE0001373
Lab Number: 06194866
Test Package: CONST

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
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

NORMAL

26 Sep 2023 Diag: Sean Felton

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

NORMAL

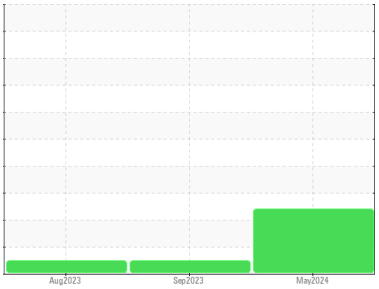
29 Aug 2023 Diag: Jonathan Hester

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
F/V ARCTIC FURY (S/N 37259081)
Component
Starboard Genset
Fluid
MOBIL DELVAC MX 15W40 (--- QTS)

DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PE0001373**	PE0001379	PE0001203
Sample Date		Client Info		**19 May 2024**	26 Sep 2023	29 Aug 2023
Machine Age	hrs	Client Info		**13966**	13513	13183
Oil Age	hrs	Client Info		**582**	250	1000
Oil Changed		Client Info		**Changed**	Changed	Not Changd
Sample Status				**SEVERE**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**3**	3	3
Chromium	ppm	ASTM D5185m	>4	**<1**	<1	0
Nickel	ppm	ASTM D5185m	>2	**0**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m	>5	**<1**	<1	0
Aluminum	ppm	ASTM D5185m	>12	**<1**	2	<1
Lead	ppm	ASTM D5185m	>17	**<1**	<1	0
Copper	ppm	ASTM D5185m	>70	**4**	<1	0
Tin	ppm	ASTM D5185m	>15	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**76**	123	127
Barium	ppm	ASTM D5185m		**0**	2	0
Molybdenum	ppm	ASTM D5185m		**5**	10	10
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**171**	371	426
Calcium	ppm	ASTM D5185m		**1595**	1715	1715
Phosphorus	ppm	ASTM D5185m		**709**	865	802
Zinc	ppm	ASTM D5185m		**767**	994	927
Sulfur	ppm	ASTM D5185m		**2832**	3688	3537

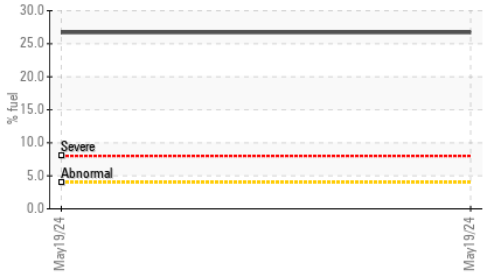
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**8**	5	5
Sodium	ppm	ASTM D5185m		**2**	1	2
Potassium	ppm	ASTM D5185m	>20	**3**	13	3
Fuel	%	ASTM D3524	>4.0	▲ **26.7**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**7.2**	7.0	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	**17.0**	18.7	18.8

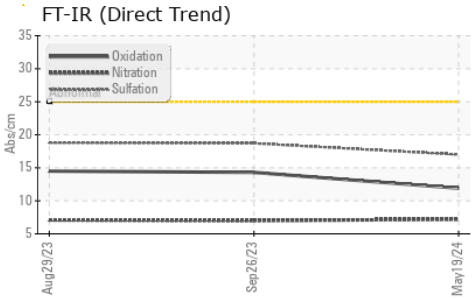
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**11.9**	14.3	14.5
Base Number (BN)	mg KOH/g	ASTM D2896	12	**7.1**	7.8	8.0

OIL ANALYSIS REPORT

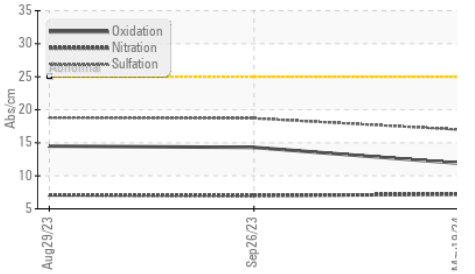
▲ Fuel Dilution



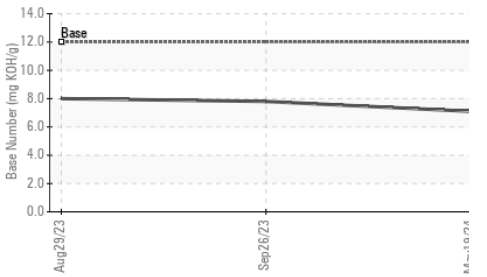
FT-IR (Direct Trend)



FT-IR (Direct Trend)



Base Number

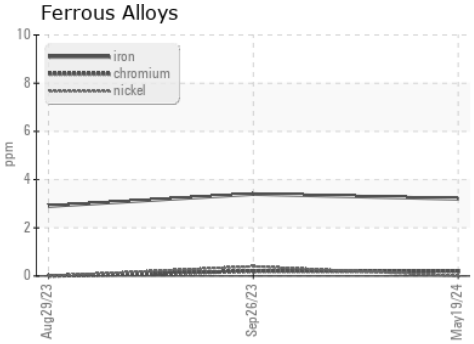


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

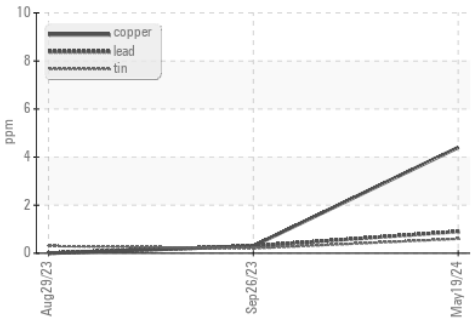
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	▲ **8.7**	13.5	13.2

GRAPHS

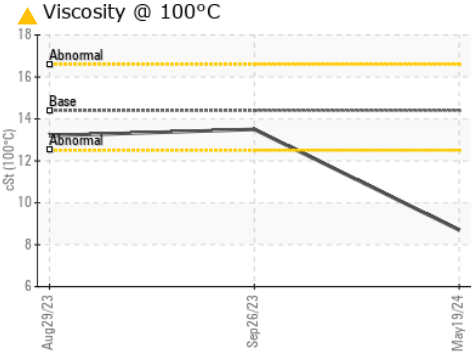
Ferrous Alloys



Non-ferrous Metals



▲ Viscosity @ 100°C



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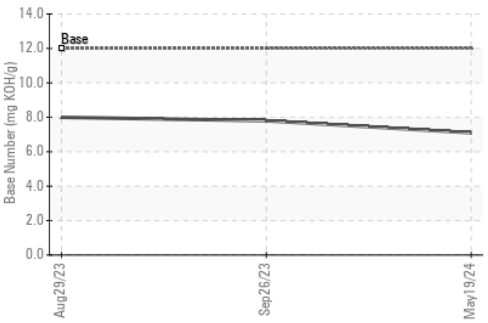

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0001373 **Received** : 29 May 2024
Lab Number : 06194866 **Tested** : 31 May 2024
Unique Number : 11056989 **Diagnosed** : 31 May 2024 - Don Baldridge
Test Package : CONST (Additional Tests: FT-IR, FuelDilution, ICP, KV100, PercentFuel, SCREEN, TBN)

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)

THE FURY GROUP
4005 20TH AVE W
SEATTLE, WA
US 98199
Contact: Service Manager
OFFICE@FURYGROUP.COM
T:
F: