MAR II

WEAR CHECK Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
AHE
Machine Id
AHE
Component
Starboard Genset
Fluid
CHEVRON DELO 710 LS (8 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

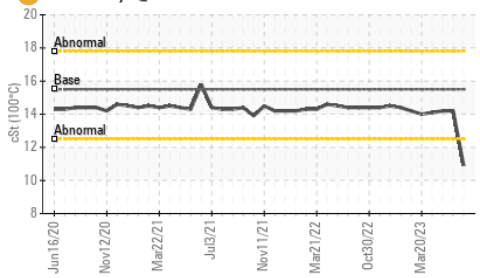
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

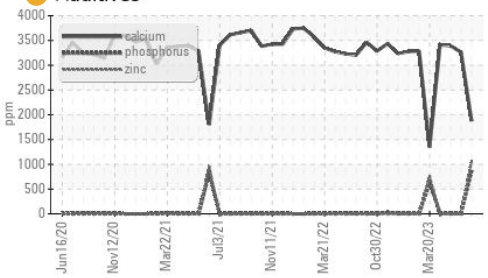
The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0054985	MW0054994	MW0050632
Sample Date		Client Info		25 May 2024	22 Jun 2023	14 May 2023
Machine Age	hrs	Client Info		286	28023	27680
Oil Age	hrs	Client Info		286	343	314
Filter Age	hrs	Client Info		28	343	314
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	14	4	2
Chromium	ppm	ASTM D5185m	>4	<1	1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>5	1	<1	0
Aluminum	ppm	ASTM D5185m	>12	3	2	1
Lead	ppm	ASTM D5185m	>17	1	<1	0
Copper	ppm	ASTM D5185m	>70	14	2	0
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	8	3	2
Potassium	ppm	ASTM D5185m	>20	17	<1	<1
Fuel	%	ASTM D3524	>4.0	0.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.4	7.7	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2	14.3	14.4
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
Sodium	ppm	ASTM D5185m		7	3	2
Boron	ppm	ASTM D5185m		227	44	40
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		234	44	43
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		773	15	12
Calcium	ppm	ASTM D5185m		1876	3262	3391
Phosphorus	ppm	ASTM D5185m		867	6	7
Zinc	ppm	ASTM D5185m		1053	0	0
Sulfur	ppm	ASTM D5185m		3525	2432	2546
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	7.4	7.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	9.5	6.4	6.9
Visc @ 100°C	cSt	ASTM D445	15.5	10.9	14.2	14.2

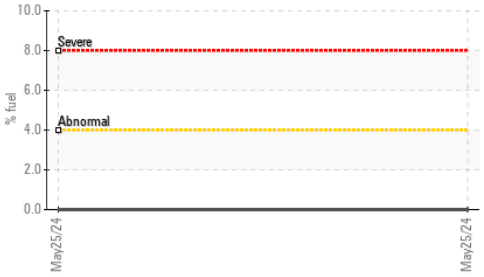
Viscosity @ 100°C



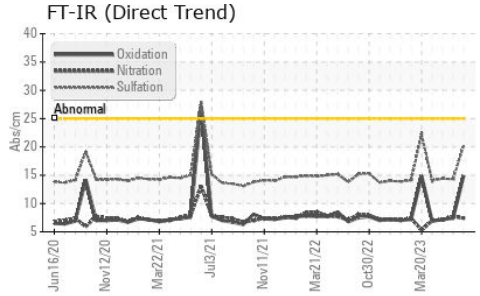
Additives



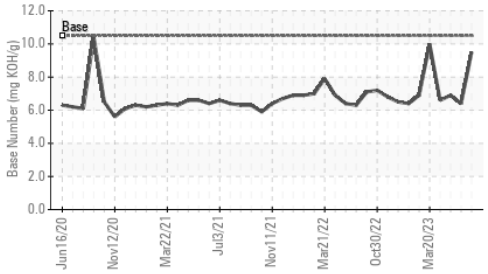
Fuel Dilution



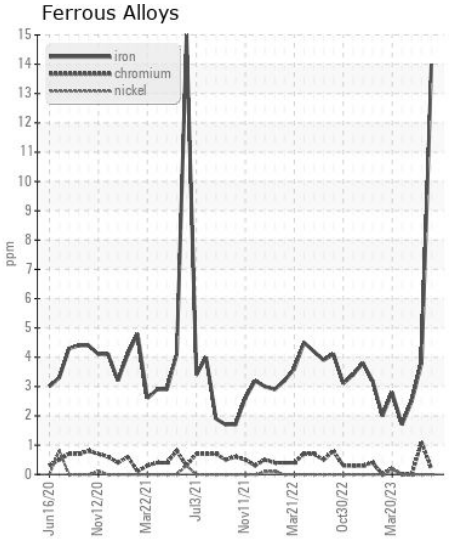
FT-IR (Direct Trend)



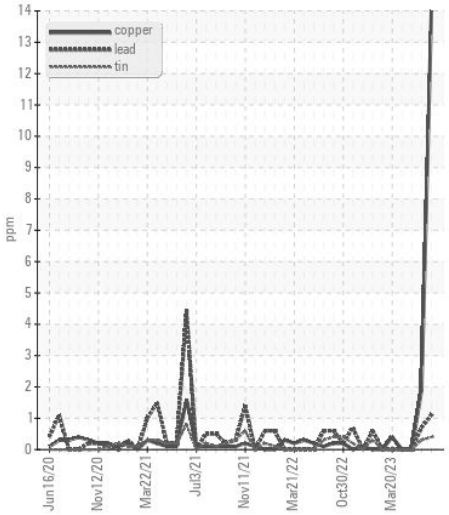
Base Number



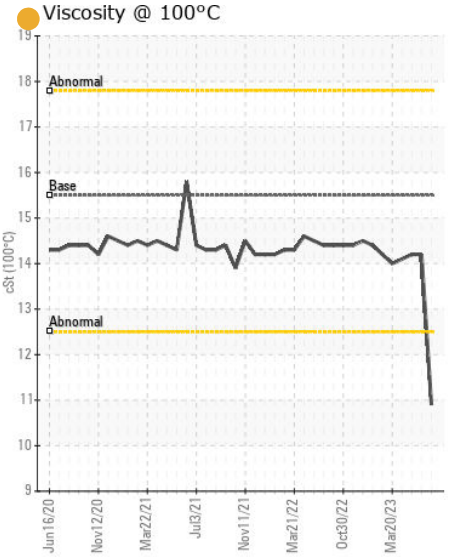
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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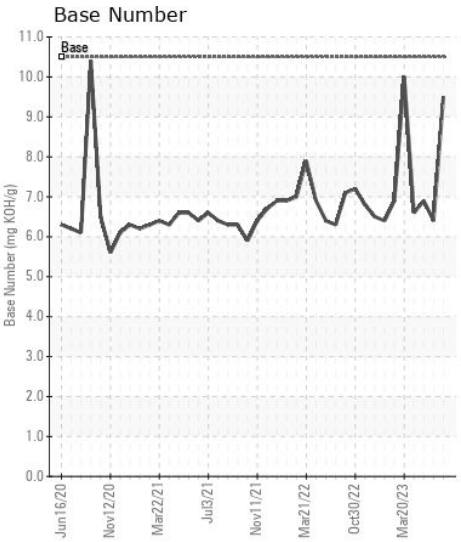

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0054985
Lab Number : 06217940
Unique Number : 11096137
Test Package : MAR 2 (Additional Tests: FuelDilution, PercentFuel)

Received : 24 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 2024 - Jonathan Hester

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)

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