MAR II

WEAR CHECK Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CHA
Component
Starboard Genset
Fluid
CHEVRON URSA SUPER PLUS 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

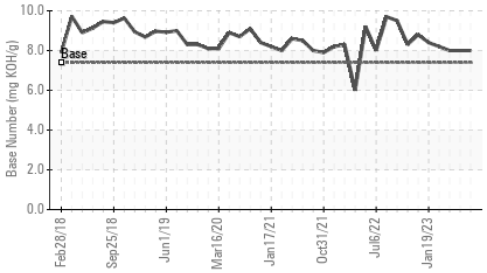
There is no indication of any contamination in the oil.

FLUID CONDITION

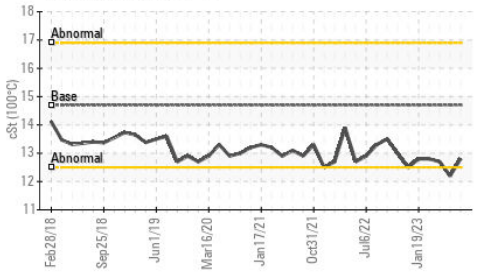
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW05877877	MW05843060	MW05823767
Sample Date		Client Info		19 Jun 2023	09 May 2023	18 Apr 2023
Machine Age	hrs	Client Info		31526	31014	30433
Oil Age	hrs	Client Info		512	381	348
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ATTENTION	NORMAL
Iron	ppm	ASTM D5185m	>25	4	2	4
Chromium	ppm	ASTM D5185m	>5	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	5	0
Lead	ppm	ASTM D5185m	>10	<1	12	0
Copper	ppm	ASTM D5185m	>20	<1	0	0
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	4	4	5
Potassium	ppm	ASTM D5185m	>20	2	<1	1
Fuel		WC Method	>4.0	<1.0	▲ 2.6	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.2	8.1	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	24.1	21.8
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		0	1	<1
Boron	ppm	ASTM D5185m		378	344	395
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		109	105	105
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		499	542	505
Calcium	ppm	ASTM D5185m		1457	1553	1423
Phosphorus	ppm	ASTM D5185m	1000	857	869	834
Zinc	ppm	ASTM D5185m	1090	1017	1074	1004
Sulfur	ppm	ASTM D5185m		3081	3052	2762
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	21.9	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	7.4	8.0	8.0	8.0
Visc @ 100°C	cSt	ASTM D445	14.7	12.8	● 12.2	12.7

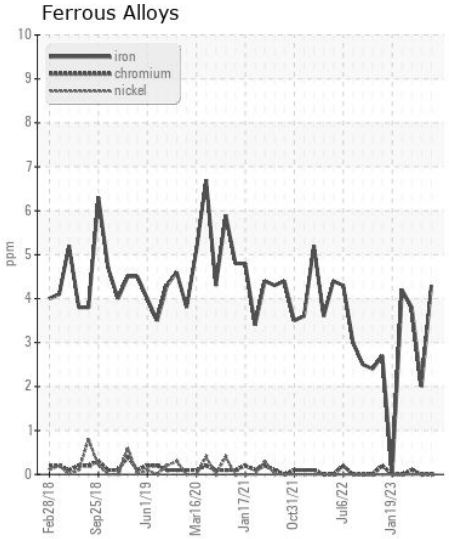
Base Number



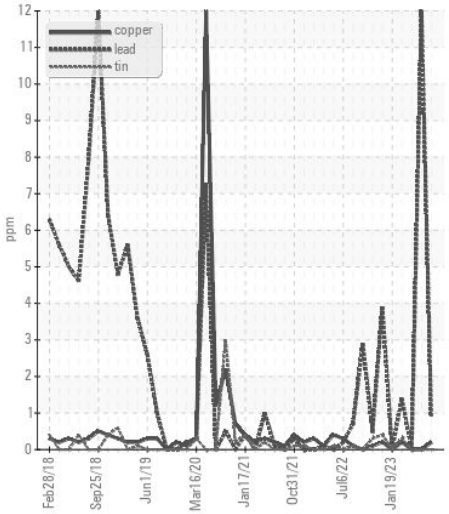
Viscosity @ 100°C



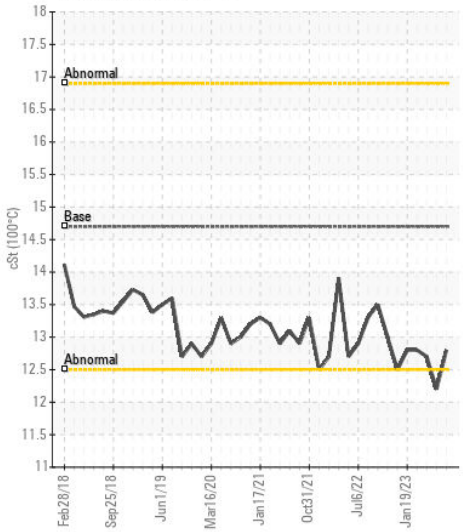
Ferrous Alloys



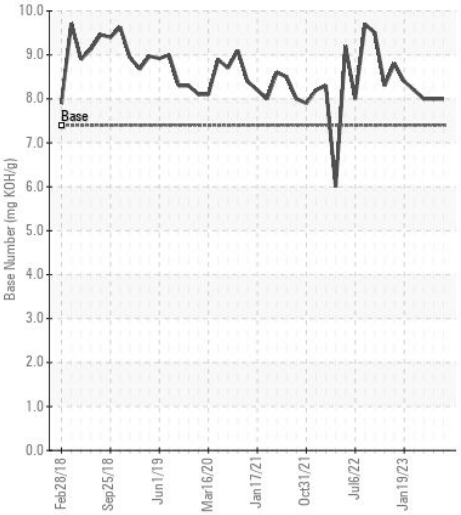
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW05877877
Lab Number : 05877877
Unique Number : 10522980
Test Package : MAR 2

Received : 20 Jun 2023
Tested : 21 Jun 2023
Diagnosed : 21 Jun 2023 - Sean Felton

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)

ILLINOIS MARINE TOWING
PO BOX 391
LEMONT, IL
US 60439
Contact: RHETT DANIEL
rdaniel@imtowing.com
T: (630)280-4926
F: (630)739-2041