MAR II

WEAR CHECK Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
ROBERT W TAYLOR
Machine Id
[ROBERT W TAYLOR] 007 568680-7
Component
Port Genset
Fluid
SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

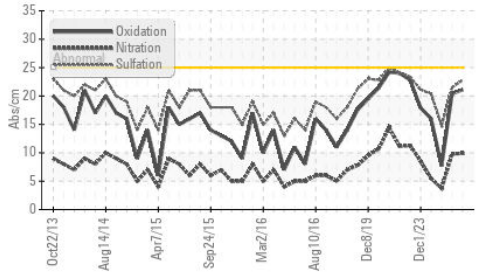
There is no indication of any contamination in the oil.

FLUID CONDITION

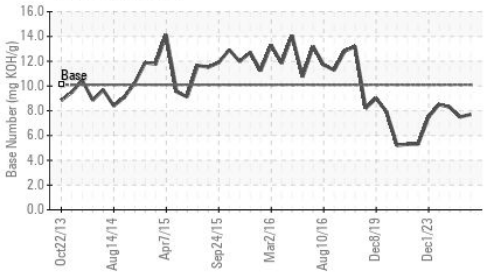
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0061515	MW0063112	MW0063120
Sample Date		Client Info		02 May 2024	01 Mar 2024	02 Jan 2024
Machine Age	hrs	Client Info		31830	32139	16482
Oil Age	hrs	Client Info		298	336	1122
Filter Age	hrs	Client Info		298	336	1122
Oil Changed		Client Info		Not Changd	N/A	Not Changd
Filter Changed		Client Info		Not Changd	N/A	Not Changd
Sample Status				NORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>50	8	21	5
Chromium	ppm	ASTM D5185m	>4	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	4	▲ 16	0
Lead	ppm	ASTM D5185m	>17	<1	<1	1
Copper	ppm	ASTM D5185m	>70	1	8	▲ 83
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	7	9	2
Potassium	ppm	ASTM D5185m	>20	13	4	0
Fuel		WC Method	>4.0	<1.0	<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
Nitration	Abs/cm	*ASTM D7624	>20	9.9	9.8	3.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.8	21.5	14.8
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		4	0	2
Boron	ppm	ASTM D5185m	316	225	193	34
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	1.2	8	22	87
Manganese	ppm	ASTM D5185m		0	1	<1
Magnesium	ppm	ASTM D5185m	24	50	140	43
Calcium	ppm	ASTM D5185m	2292	3377	2116	2456
Phosphorus	ppm	ASTM D5185m	1064	1473	937	892
Zinc	ppm	ASTM D5185m	1160	1818	1174	1094
Sulfur	ppm	ASTM D5185m	4996	5144	3195	2941
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.1	20.4	7.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	7.7	7.5	8.3
Visc @ 100°C	cSt	ASTM D445	15.7	14.4	14.0	13.3

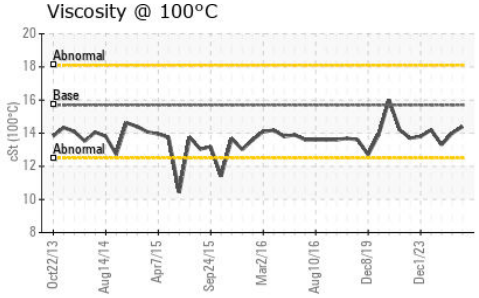
FT-IR (Direct Trend)



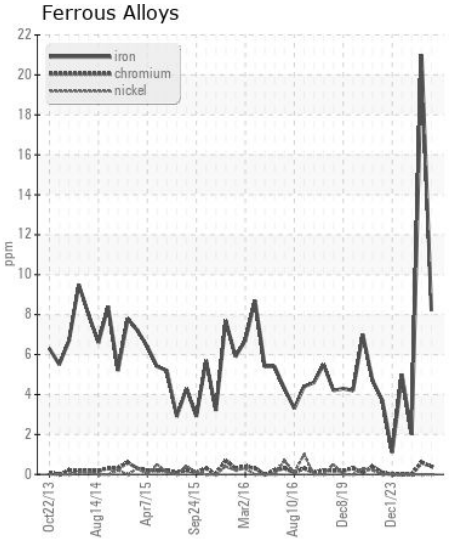
Base Number



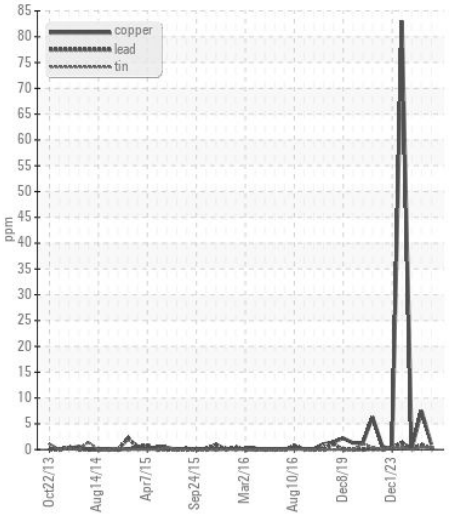
Viscosity @ 100°C



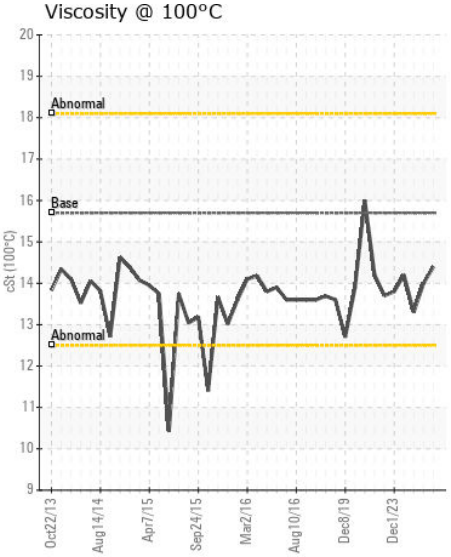
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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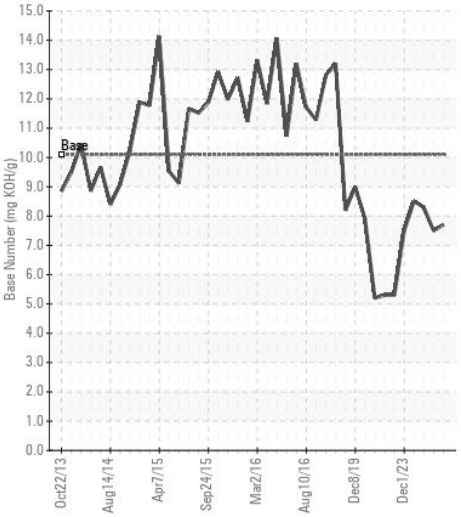

Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: MW0061515	**Received**	: 09 May 2024
Lab Number	: 06174902	**Tested**	: 10 May 2024
Unique Number	: 11020955	**Diagnosed**	: 13 May 2024 - Angela Borella
Test Package	: MAR 2		

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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