MAR II

WEAR CHECK Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
ROBIN B INGRAM
Machine Id
[ROBIN B INGRAM] 006 617985-6
Component
Starboard Reduction Gear
Fluid
CHEVRON MEROPA 320 (--- 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

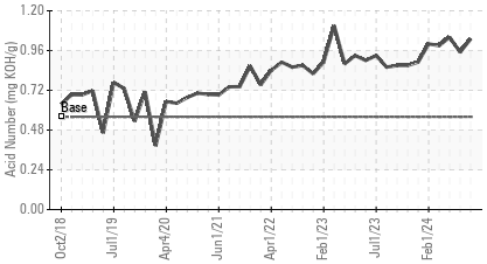
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW06221840	MW06192946	MW06159843
Sample Date		Client Info		01 Jun 2024	28 May 2024	01 Apr 2024
Machine Age	hrs	Client Info		66182	65757	64749
Oil Age	hrs	Client Info		66182	65757	0
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	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>150	58	56	58
Chromium	ppm	ASTM D5185m	>10	0	<1	1
Nickel	ppm	ASTM D5185m	>10	<1	<1	1
Titanium	ppm	ASTM D5185m		<1	<1	1
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>25	5	5	5
Lead	ppm	ASTM D5185m	>100	<1	<1	2
Copper	ppm	ASTM D5185m	>50	4	6	7
Tin	ppm	ASTM D5185m	>10	<1	0	1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>50	10	14	12
Potassium	ppm	ASTM D5185m	>20	3	3	4
Water	%	ASTM D6304	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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		9	9	11
Boron	ppm	ASTM D5185m	20	9	7	7
Barium	ppm	ASTM D5185m		32	30	40
Molybdenum	ppm	ASTM D5185m	0	<1	1	2
Manganese	ppm	ASTM D5185m		1	<1	2
Magnesium	ppm	ASTM D5185m		0	2	4
Calcium	ppm	ASTM D5185m	25	41	50	46
Phosphorus	ppm	ASTM D5185m	235	251	208	253
Zinc	ppm	ASTM D5185m		32	16	16
Sulfur	ppm	ASTM D5185m		9031	6509	8404
Acid Number (AN)	mg KOH/g	ASTM D8045	0.56	1.03	0.95	1.04
Visc @ 40°C	cSt	ASTM D445	304	337	340	344

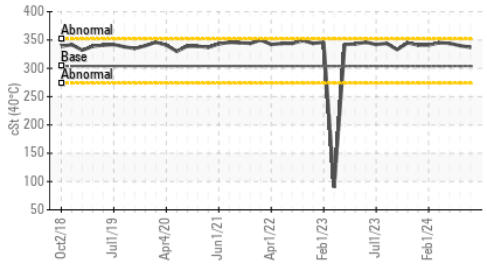
Report Id: INGPAD [WUSCAR] 06221840 (Generated: 07/02/2024 04:44:00) Rev: 3

Contact/Location: ANTHONY VAN CURA - INGPAD

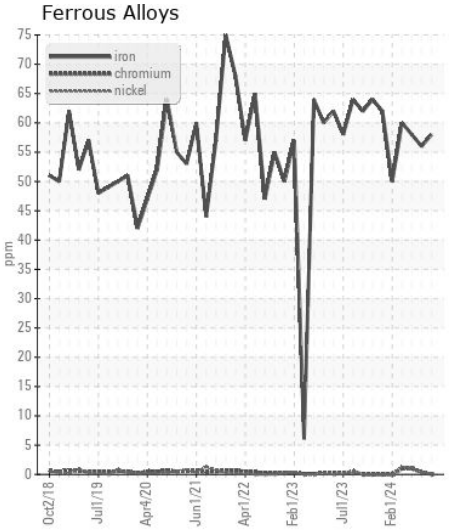
Acid Number



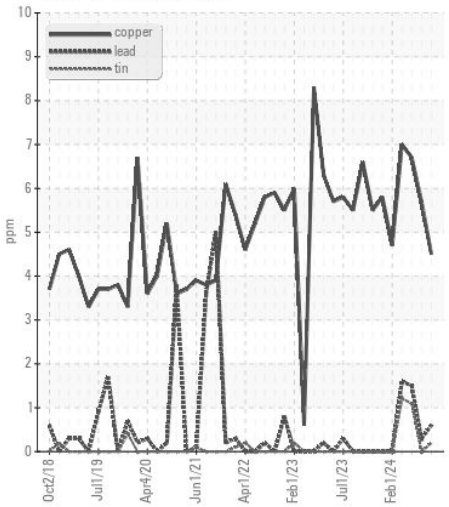
Viscosity @ 40°C



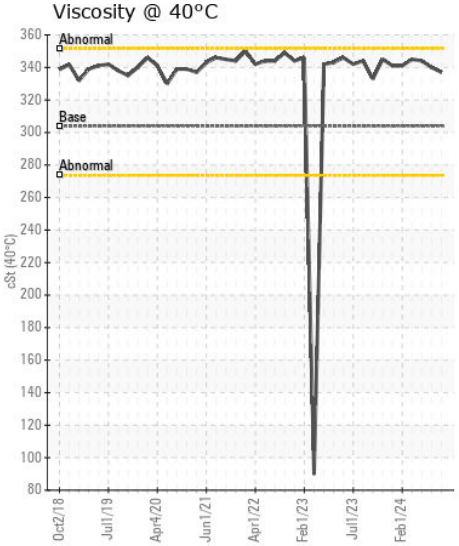
Ferrous Alloys



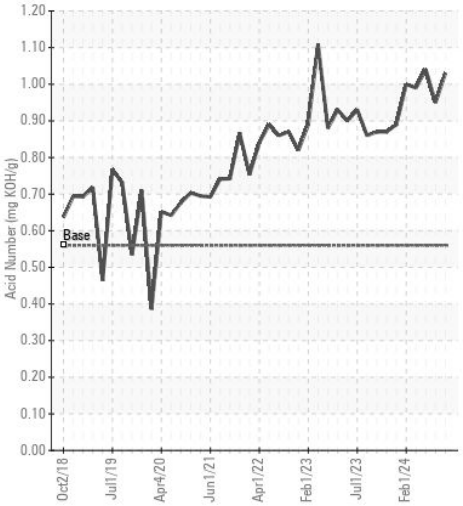
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW06221840 **Received** : 26 Jun 2024
Lab Number : 06221840 **Tested** : 01 Jul 2024
Unique Number : 11100037 **Diagnosed** : 01 Jul 2024 - Jonathan Hester
Test Package : MAR 2 (Additional Tests: KF, PrtCount)

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)

INGRAM BARGE
900 S 3RD ST
PADUCAH, KY
US 42003
Contact: ANTHONY VAN CURA
anthony.vancura@ingrambarge.com
T: (270)415-4467
F: (615)695-3697