



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
STBD STEERING (S/N 115841-080002)
 Component
Starboard Steering
 Fluid
CASTROL HYPSPIN AWH-M ISO 32 (300 LTR)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MAR 2 test kits, this testkit includes AN to determine the suitability of the fluid for continued use.

WEAR

All component wear rates are normal.

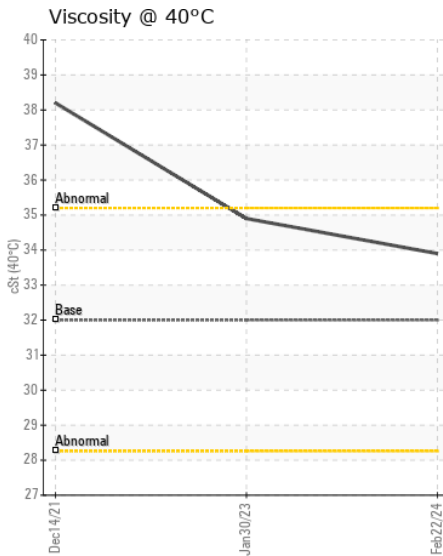
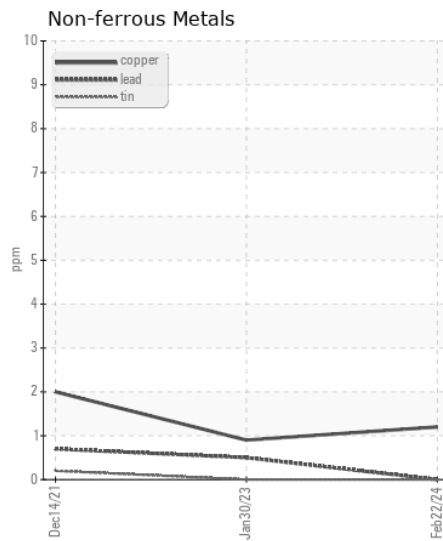
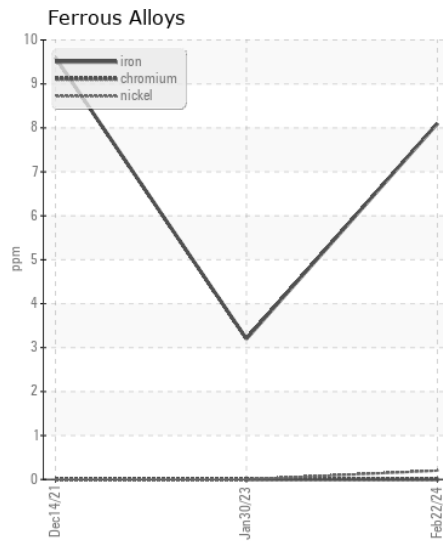
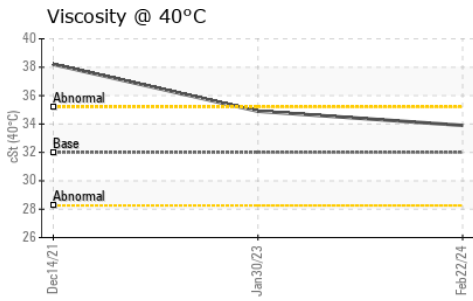
CONTAMINATION

There is no indication of any contamination in the fluid.

FLUID CONDITION

The condition of the fluid is acceptable for the time in service (unconfirmed).

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0787198	WC0474212	WC0643457
Sample Date		Client Info		22 Feb 2024	30 Jan 2023	14 Dec 2021
Machine Age	hrs	Client Info		32026	0	0
Oil Age	hrs	Client Info		32026	0	0
Filter Age	hrs	Client Info		600	0	0
Oil Changed		Client Info		Not Changed	N/A	Not Changed
Filter Changed		Client Info		Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL
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Iron	ppm	ASTM D5185(m)	>60	8	3	10
Chromium	ppm	ASTM D5185(m)	>12	0	0	0
Nickel	ppm	ASTM D5185(m)	>6	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>4	<1	0	<1
Lead	ppm	ASTM D5185(m)	>12	0	<1	<1
Copper	ppm	ASTM D5185(m)	>30	1	<1	2
Tin	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
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Silicon	ppm	ASTM D5185(m)	>10	8	5	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Water		WC Method		NEG	NEG	NEG
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*		NEG	NEG	NEG
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Sodium	ppm	ASTM D5185(m)		<1	0	1
Boron	ppm	ASTM D5185(m)		0	<1	<1
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		<1	<1	3
Calcium	ppm	ASTM D5185(m)		49	53	72
Phosphorus	ppm	ASTM D5185(m)		388	422	389
Zinc	ppm	ASTM D5185(m)		466	467	435
Sulfur	ppm	ASTM D5185(m)		4255	4410	3984
Visc @ 40°C	cSt	ASTM D7279(m)	32.0	33.9	34.9	38.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0787198
Lab Number : 02620034
Unique Number : 5737144
Test Package : MAR 1

Horizon Maritime Services Ltd. - K.J. Gardner
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 Dartmouth, NS
 CA B2Y 4T6
 Contact: Engine Room
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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