WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

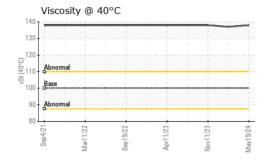
Propulsion/Steering

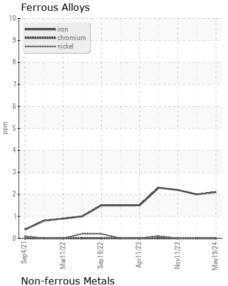
Main Propulsion Thruster Port #4 (S/N C240558)

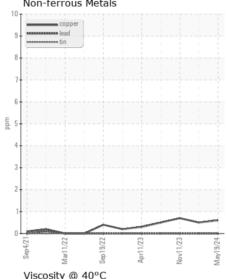
Component
4 Sternthruster

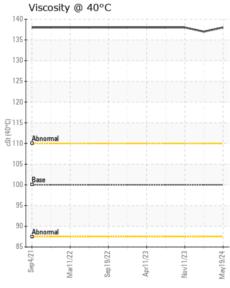
MORII MORII GEAR 600 XP ISO100 (3000 I TR)

MOBIL MOBILGEAR 600 XP ISO100 (3000 LTR))						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MAR 3 test kits, this testkit includes AN to determine the suitability of the oil for continued use. this testkit includes Particle Count to determine the ISO cleanliness of the fluid. this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.	Sample Number		Client Info		WC0850491	WC0850505	WC0850475
	Sample Date		Client Info		19 May 2024	19 Feb 2024	11 Nov 2023
	Machine Age	hrs	Client Info		74684	73510	72004
	Oil Age	hrs	Client Info		1174	0	17094
	Filter Age	hrs	Client Info		0	0	13404
	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
	Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185(m)	>25	2	2	2
	Chromium	ppm	ASTM D5185(m)		0	0	0
Component wear rates appear to be normal (unconfirmed).	Nickel	ppm	ASTM D5185(m)	>2	0	0	0
	Titanium	ppm	ASTM D5185(m)		0	0	0
	Silver	ppm	ASTM D5185(m)		0	0	<1
	Aluminum	ppm	ASTM D5185(m)	>2	0	0	0
	Lead	ppm	ASTM D5185(m)	>3	0	0	0
	Copper	ppm	ASTM D5185(m)	>3	<1	<1	<1
	Tin	ppm	ASTM D5185(m)	>3	0	0	0
	Vanadium	ppm	ASTM D5185(m)		0	0	0
	White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon		ACTM DE10E/m)	. 10	.4	0	4
CONTAMINATION		ppm	ASTM D5185(m)	>10	<1	0	1
There is no indication of any contamination in the oil.	Potassium Water	ppm	ASTM D5185(m) WC Method	>20	0 NEG	<1 NEG	0 NEG
	Silt	analar	Visual*	NONE	NONE	NONE	NONE
	Debris	scalar 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			>0.1	NEG	NEG	NEG
THE CONDITION							
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		<1	0	<1
Viscosity of sample indicates oil is within ISO 150 range, advise investigate. The condition of the oil is acceptable for the time in service (unconfirmed).	Boron	ppm	ASTM D5185(m)		2	<1	4
	Barium	ppm	ASTM D5185(m)		0	0	<1
	Molybdenum	ppm	ASTM D5185(m)		0	0	0
	Manganese	ppm	ASTM D5185(m)		0	0	0
	Magnesium	ppm	ASTM D5185(m)		0	<1	0
	Calcium	ppm	ASTM D5185(m)		1	1	2
	Phosphorus	ppm	ASTM D5185(m)		324	323	326
	Zinc	ppm	ASTM D5185(m)		4 6670	3 6757	4
	Sulfur Visc @ 40°C	ppm cSt	ASTM D5185(m) ASTM D7279(m)	100	6679 138	6757 137	6873 138
	VISC @ 40°C	USI	MOTIVI D1219(III)		n: Stenhen N		











CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WC0850491 Lab Number : 02640534 Unique Number : 5789696

Test Package : MAR 1

Received **Tested**

Diagnosed

: 07 Jun 2024 : 07 Jun 2024

: 10 Jun 2024 - Kevin Marson

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Horizon Maritime Services Ltd. - Horizon Enabler 87 Water Street, 2nd Floor St. John's, NL **CA A1C 1A5**

Contact: Stephen Nowlan Cheng.Enabler@northsea.no T:

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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