



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KARM FORKS/TOW PIN (S/N 83214)
 Component
Hydraulic System
 Fluid
CASTROL HYSPIN AWH-M ISO 46 (500 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 Particle Count to determine the ISO cleanliness of the fluid. this testkit includes AN to determine the suitability of the oil for continued use.

WEAR

All component wear rates are normal.

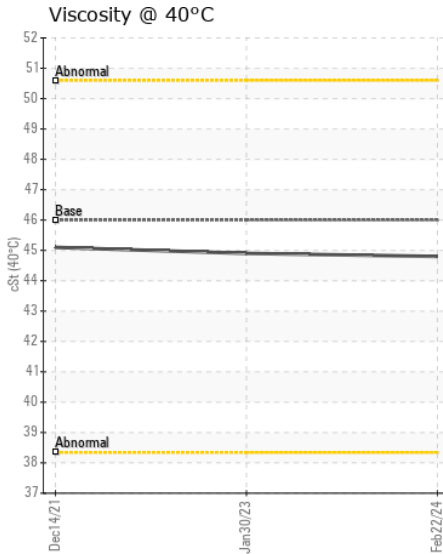
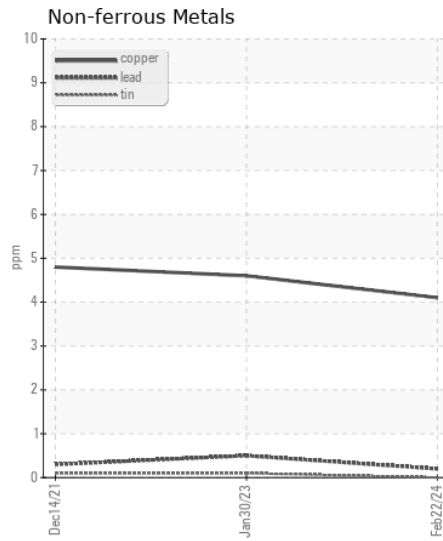
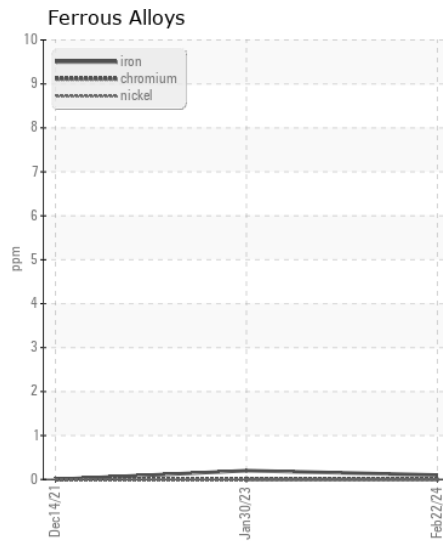
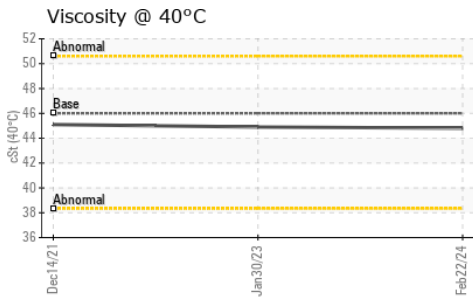
CONTAMINATION

There is no indication of any contamination in the component(unconfirmed).

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0787201	WC0474215	WC0643448
Sample Date		Client Info		22 Feb 2024	30 Jan 2023	14 Dec 2021
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Not Changed	N/A	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>20	<1	<1	0
Chromium	ppm	ASTM D5185(m)	>10	0	0	0
Nickel	ppm	ASTM D5185(m)	>10	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>10	<1	0	<1
Lead	ppm	ASTM D5185(m)	>10	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>75	4	5	5
Tin	ppm	ASTM D5185(m)	>10	0	<1	<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
Silicon	ppm	ASTM D5185(m)	>20	0	<1	0
Potassium	ppm	ASTM D5185(m)	>20	1	1	<1
Water		WC Method	>0.1	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*	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		1	1	<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	0
Magnesium	ppm	ASTM D5185(m)		<1	<1	<1
Calcium	ppm	ASTM D5185(m)		64	59	46
Phosphorus	ppm	ASTM D5185(m)		395	419	393
Zinc	ppm	ASTM D5185(m)		339	389	456
Sulfur	ppm	ASTM D5185(m)		3112	3260	3463
Visc @ 40°C	cSt	ASTM D7279(m)	46.0	44.8	44.9	45.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0787201
Lab Number : 02619937
Unique Number : 5737047
Test Package : MAR 1

Horizon Maritime Services Ltd. - K.J. Gardner
 101 Research Drive, Main Floor
 Dartmouth, NS
 CA B2Y 4T6
 Contact: Engine Room
 chiefeng.kjgardner@horizonmaritime.com

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.

T:
F: