WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

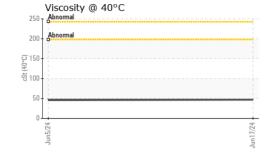
Machine Id

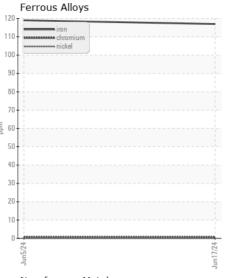
## TWIN DISC CAPTAIN JEFF IRBY

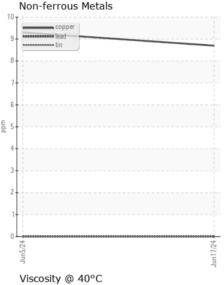
**Starboard Gearbox** 

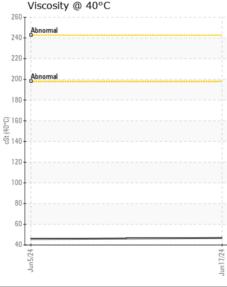
KENDALL D3 40WT (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		HRE0000281	HRE0000274	
	Sample Date		Client Info		17 Jun 2024	05 Jun 2024	
	Machine Age	hrs	Client Info		3266	3256	
	Oil Age	hrs	Client Info		1000	1000	
	Filter Age	hrs	Client Info		1000	1000	
	Oil Changed		Client Info		Not Changd	Not Changd	
	Filter Changed		Client Info		Not Changd	Not Changd	
	Sample Status				NORMAL	ABNORMAL	
NEAD.							
WEAR	Iron	ppm	ASTM D5185m		117	119	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1	<1	
	Nickel	ppm	ASTM D5185m	>10	0	0	
	Titanium	ppm	ASTM D5185m		4	4	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m		<1	0	
	Lead	ppm	ASTM D5185m		0	0	
	Copper	ppm	ASTM D5185m		9	9	
	Tin	ppm	ASTM D5185m	>10	0	0	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>50	4	3	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	7	<1	
	Water		WC Method	>0.2	NEG	NEG	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	▲ MODER	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Appearance Odor	scalar scalar	*Visual	NORML NORML	NORML NORML	NORML NORML	
		scalar					
FLUID CONDITION	Odor	scalar	*Visual	NORML	NORML	NORML	
FLUID CONDITION  The condition of the cili is accontable for the time in consider	Odor Emulsified Water Sodium	scalar scalar	*Visual  *Visual  ASTM D5185m	NORML	NORML NEG	NORML NEG	
FLUID CONDITION  The condition of the oil is acceptable for the time in service.	Odor Emulsified Water	scalar scalar ppm	*Visual	NORML	NORML NEG 20	NORML NEG 19	
	Odor Emulsified Water Sodium Boron	scalar scalar ppm ppm	*Visual  *Visual  ASTM D5185m  ASTM D5185m	NORML	NORML NEG 20 102	NORML NEG 19 124	
	Odor Emulsified Water Sodium Boron Barium	scalar scalar ppm ppm	*Visual  *Visual  ASTM D5185m  ASTM D5185m  ASTM D5185m	NORML	NORML NEG 20 102	NORML NEG 19 124 0	
	Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar ppm ppm ppm	*Visual  *Visual  ASTM D5185m  ASTM D5185m  ASTM D5185m	NORML	NORML NEG 20 102 0 14	NORML NEG 19 124 0 15	
	Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar scalar ppm ppm ppm ppm	*Visual  *Visual  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	NORML	NORML NEG 20 102 0 14 2	NORML NEG 19 124 0 15	
	Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar scalar ppm ppm ppm ppm ppm	*Visual  *Visual  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	NORML	NORML NEG 20 102 0 14 2 804	NORML NEG 19 124 0 15 2 757	
	Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar ppm ppm ppm ppm ppm ppm	*Visual  *Visual  ASTM D5185m	NORML	NORML NEG 20 102 0 14 2 804 1281	NORML NEG 19 124 0 15 2 757 1234	
	Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	scalar scalar ppm ppm ppm ppm ppm ppm ppm	*Visual  *Visual  ASTM D5185m  ASTM D5185m	NORML	NORML NEG 20 102 0 14 2 804 1281 1149	NORML NEG 19 124 0 15 2 757 1234 1039	











Certificate L2367

Laboratory Sample No.

Lab Number : 06216384

: HRE0000281 Unique Number : 11089248 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 20 Jun 2024 **Tested** : 21 Jun 2024

Diagnosed : 21 Jun 2024 - Wes Davis **SUPERIOR MARINE** 201 KELLY LANE CHESAPEAKE, OH US 45619

Contact: DARRELL KEARNS darrellkearns@superiormarineinc.com

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.

T:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: SUPCHEOH [WUSCAR] 06216384 (Generated: 06/21/2024 19:36:34) Rev: 1

Contact/Location: DARRELL KEARNS - SUPCHEOH

F: