



Machine Id  
**TWIN DISC CAPTAIN JEFF IRBY**  
Component  
**Starboard Gearbox**  
Fluid  
**KENDALL D3 40WT (--- GAL)**

**DIAGNOSIS**

**Recommendation**

We suspect abnormal contamination may be due to sampling method. No corrective action is recommended at this time. Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

Moderate concentration of visible dirt/debris present in the oil.

**Fluid Condition**

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

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>HRE0000274</b>	---	---
Sample Date	Client Info		<b>05 Jun 2024</b>	---	---
Machine Age	hrs	Client Info	<b>3256</b>	---	---
Oil Age	hrs	Client Info	<b>1000</b>	---	---
Oil Changed	Client Info		<b>Not Chngd</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

CONTAMINATION	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	---	---

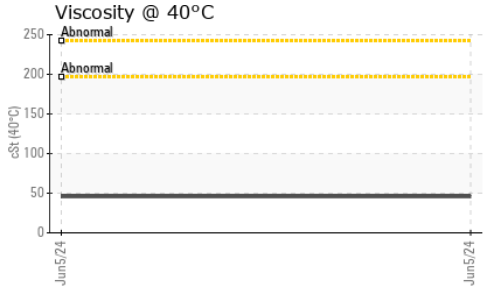
WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	<b>119</b>	---	---
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m >10	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m	<b>4</b>	---	---
Silver	ppm	ASTM D5185m	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	---	---
Lead	ppm	ASTM D5185m >50	<b>0</b>	---	---
Copper	ppm	ASTM D5185m >200	<b>9</b>	---	---
Tin	ppm	ASTM D5185m >10	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>124</b>	---	---
Barium	ppm	ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	<b>15</b>	---	---
Manganese	ppm	ASTM D5185m	<b>2</b>	---	---
Magnesium	ppm	ASTM D5185m	<b>757</b>	---	---
Calcium	ppm	ASTM D5185m	<b>1234</b>	---	---
Phosphorus	ppm	ASTM D5185m	<b>1039</b>	---	---
Zinc	ppm	ASTM D5185m	<b>1152</b>	---	---
Sulfur	ppm	ASTM D5185m	<b>4054</b>	---	---

CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>3</b>	---	---
Sodium	ppm	ASTM D5185m	<b>19</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	---	---
Precipitate	scalar	*Visual NONE	<b>NONE</b>	---	---
Silt	scalar	*Visual NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual NONE	<b>▲ MODER</b>	---	---
Sand/Dirt	scalar	*Visual NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual >0.2	<b>NEG</b>	---	---
Free Water	scalar	*Visual	<b>NEG</b>	---	---

# OIL ANALYSIS REPORT



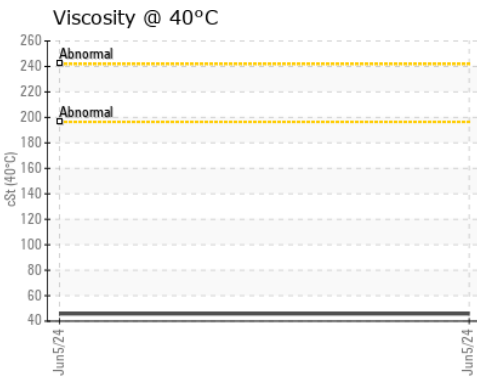
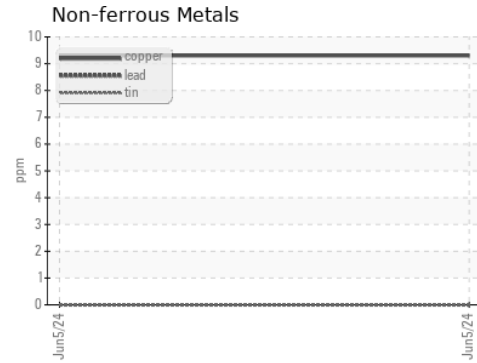
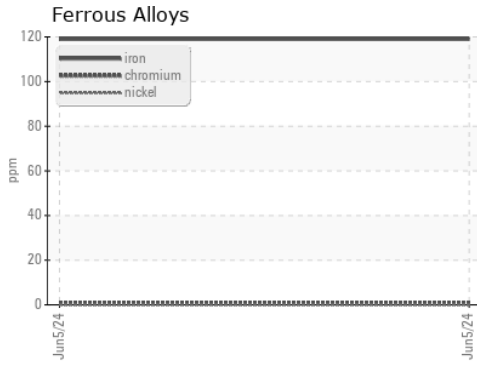
FLUID PROPERTIES	method	limit/base	current	history1	history2
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Visc @ 40°C	cSt	ASTM D445	<b>45.8</b>	---	---
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SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image	no image
Bottom				no image	no image	no image

GRAPHS
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Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HRE0000274  
**Lab Number** : 06203699  
**Unique Number** : 11071160  
**Test Package** : FLEET

**Received** : 07 Jun 2024  
**Tested** : 10 Jun 2024  
**Diagnosed** : 12 Jun 2024 - Jonathan Hester

**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.

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

T:  
F: