



Machine Id  
**TWIN DISC FRANCES SWAYZE**  
Component  
**Starboard Reduction Gear**  
Fluid  
**SHELL ROTELLA T 40 (10 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW06218404</b>	MW0056778	---
Sample Date		Client Info		<b>10 Jun 2024</b>	19 Dec 2023	---
Machine Age	hrs	Client Info		<b>0</b>	33901	---
Oil Age	hrs	Client Info		<b>0</b>	260	---
Filter Age	hrs	Client Info		<b>0</b>	260	---
Oil Changed		Client Info		<b>N/A</b>	Not Changd	---
Filter Changed		Client Info		<b>N/A</b>	Not Changd	---
Sample Status				<b>NORMAL</b>	NORMAL	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	<b>4</b>	5	---
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>1</b>	1	---
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m		<b>2</b>	<1	---
Lead	ppm	ASTM D5185m		<b>2</b>	0	---
Copper	ppm	ASTM D5185m		<b>2</b>	<1	---
Tin	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

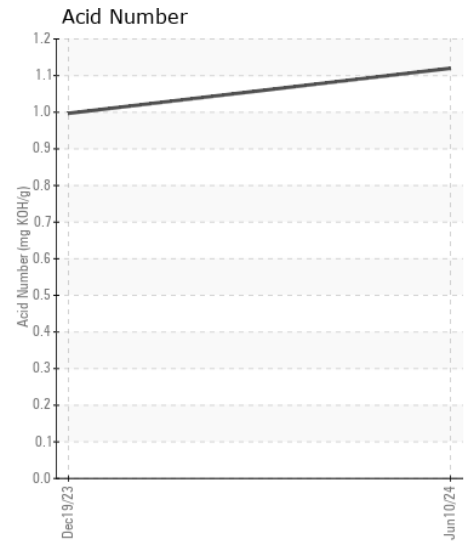
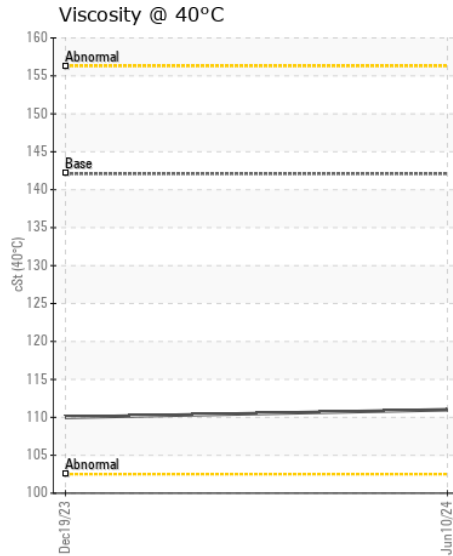
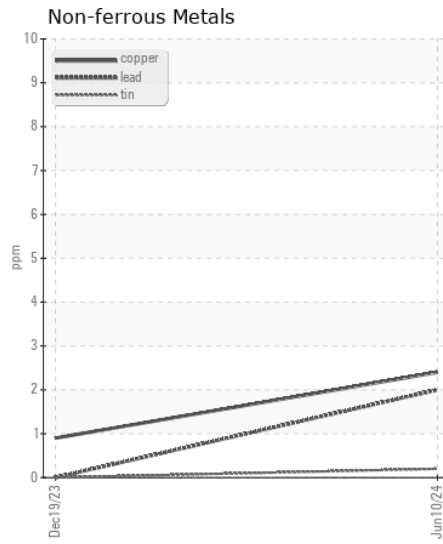
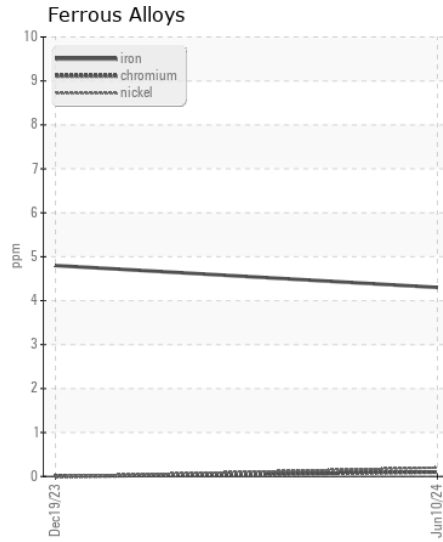
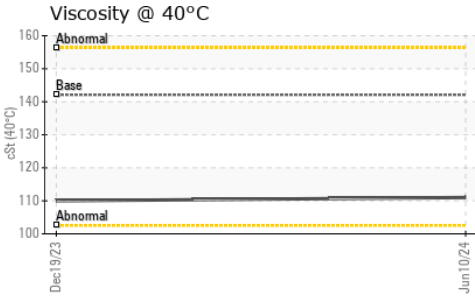
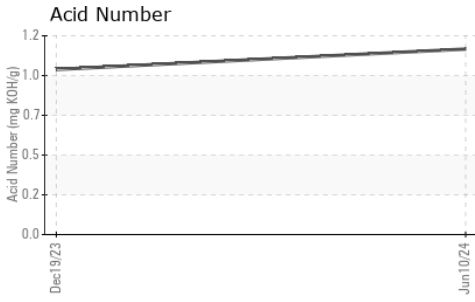
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m		<b>4</b>	3	---
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

**FLUID CONDITION**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	3	---
Boron	ppm	ASTM D5185m	0	<b>49</b>	62	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0	<b>87</b>	77	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Magnesium	ppm	ASTM D5185m	432	<b>215</b>	261	---
Calcium	ppm	ASTM D5185m	1121	<b>2465</b>	2084	---
Phosphorus	ppm	ASTM D5185m	996	<b>881</b>	805	---
Zinc	ppm	ASTM D5185m	881	<b>992</b>	877	---
Sulfur	ppm	ASTM D5185m		<b>4172</b>	3759	---
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.12</b>	0.997	---
Visc @ 40°C	cSt	ASTM D445	142.1	<b>111</b>	110	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW06218404  
**Lab Number** : 06218404  
**Unique Number** : 11096601  
**Test Package** : MAR 2

**Received** : 24 Jun 2024  
**Tested** : 25 Jun 2024  
**Diagnosed** : 25 Jun 2024 - Wes Davis

**MAGNOLIA MARINE TRANSPORT**  
 697 HAINING ROAD  
 VICKSBURG, MS  
 US 39183  
 Contact: MMT MAINTENANCE PLANNERS  
 mmtmaintenanceplanners@ergon.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)

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