



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**TWIN DISC MORGAN LEIGH**  
 Component  
**Port Genset**  
 Fluid  
**KENDALL SUPER-D XA 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HRE000286	---	---
Sample Date		Client Info		19 Jun 2024	---	---
Machine Age	hrs	Client Info		10775	---	---
Oil Age	hrs	Client Info		250	---	---
Filter Age	hrs	Client Info		250	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				NORMAL	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	20	---	---
Chromium	ppm	ASTM D5185m	>4	<1	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m		101	---	---
Silver	ppm	ASTM D5185m	>5	<1	---	---
Aluminum	ppm	ASTM D5185m	>12	4	---	---
Lead	ppm	ASTM D5185m	>17	4	---	---
Copper	ppm	ASTM D5185m	>70	17	---	---
Tin	ppm	ASTM D5185m	>15	2	---	---
Vanadium	ppm	ASTM D5185m		2	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

### CONTAMINATION

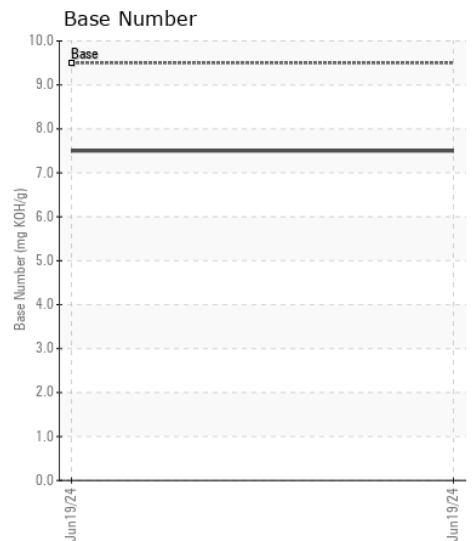
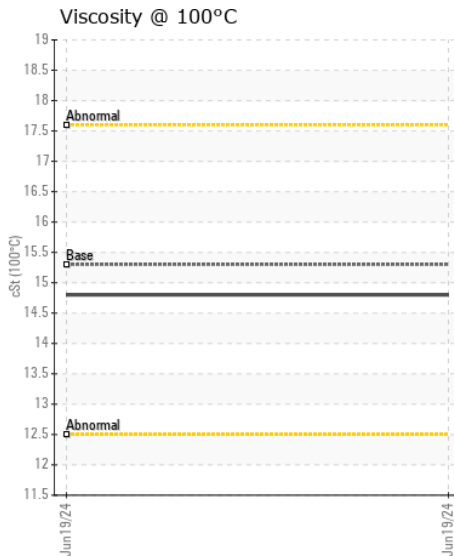
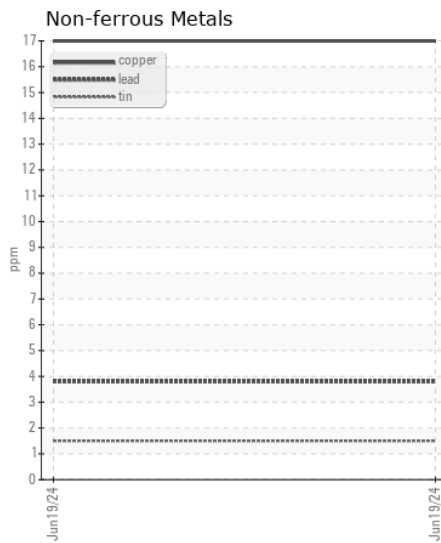
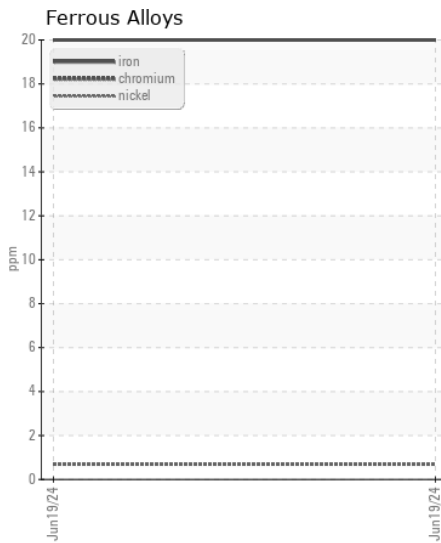
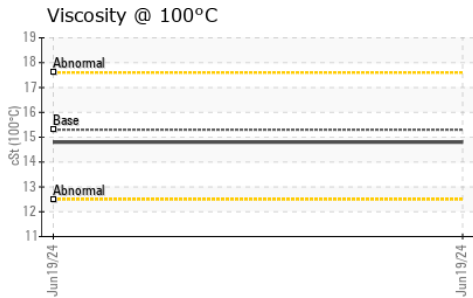
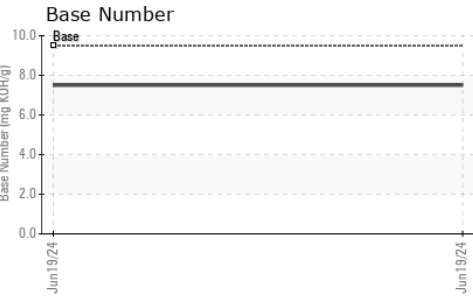
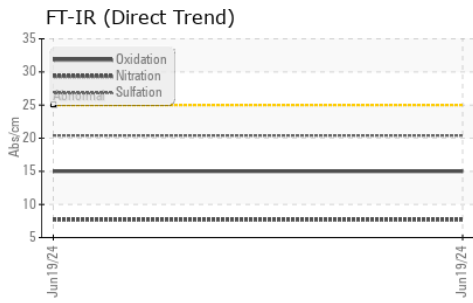
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	13	---	---
Potassium	ppm	ASTM D5185m	>20	24	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.7	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---	---

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		20	---	---
Boron	ppm	ASTM D5185m	50	131	---	---
Barium	ppm	ASTM D5185m		2	---	---
Molybdenum	ppm	ASTM D5185m		9	---	---
Manganese	ppm	ASTM D5185m		1	---	---
Magnesium	ppm	ASTM D5185m	270	504	---	---
Calcium	ppm	ASTM D5185m	1900	2029	---	---
Phosphorus	ppm	ASTM D5185m	1000	1148	---	---
Zinc	ppm	ASTM D5185m	1260	1420	---	---
Sulfur	ppm	ASTM D5185m	3400	4285	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.5	7.5	---	---
Visc @ 100°C	cSt	ASTM D445	15.3	14.8	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : HRE0000286

**Lab Number** : 06217876

**Unique Number** : 11096073

**Test Package** : FLEET

**Received** : 24 Jun 2024

**Tested** : 25 Jun 2024

**Diagnosed** : 25 Jun 2024 - Don Baldrige

**SUPERIOR MARINE**

201 KELLY LANE

CHESAPEAKE, OH

US 45619

Contact: DARRELL KEARNS

darrellkearns@superiormarineinc.com

T:

F:

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)