



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
TWIN DISC MV JL BRADEN
Component
Starboard Reduction Gear
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0069926	MW0045609	MW0039004
Sample Date		Client Info		21 May 2024	27 Jan 2024	30 Aug 2023
Machine Age	hrs	Client Info		89595	88900	86505
Oil Age	hrs	Client Info		500	2000	2000
Filter Age	hrs	Client Info		500	2000	2000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	9	12	13
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>10	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		<1	<1	0
Aluminum	ppm	ASTM D5185m	>25	3	4	3
Lead	ppm	ASTM D5185m	>100	0	2	0
Copper	ppm	ASTM D5185m	>50	1	26	28
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

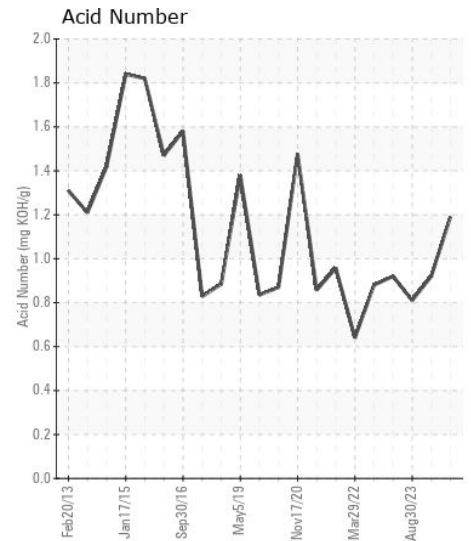
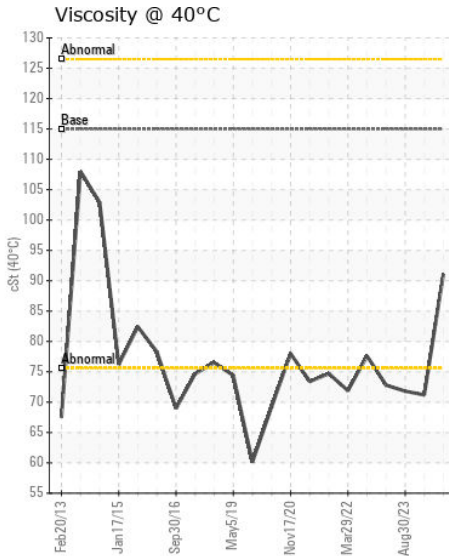
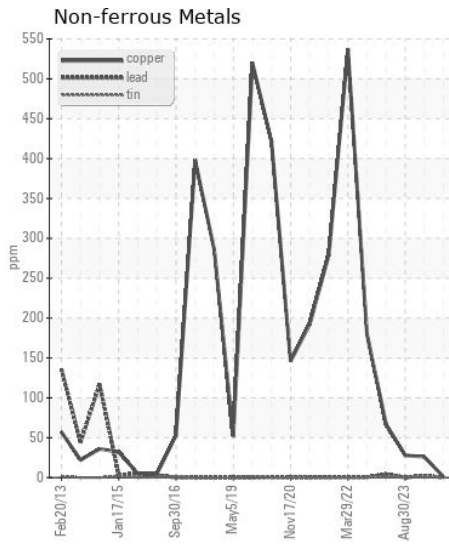
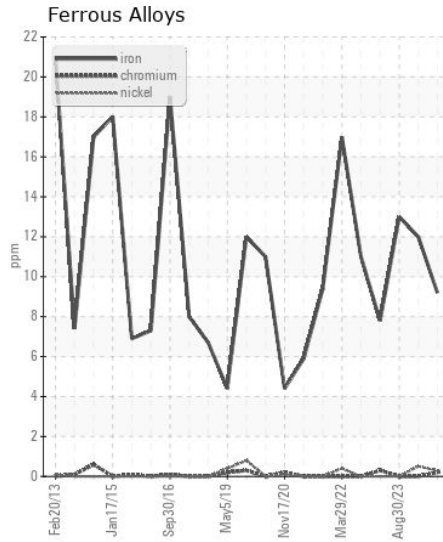
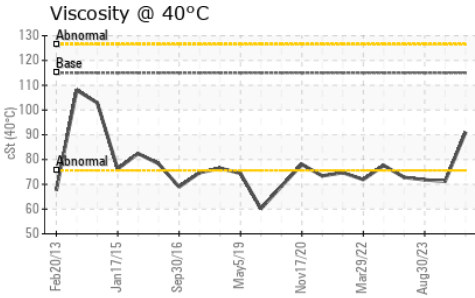
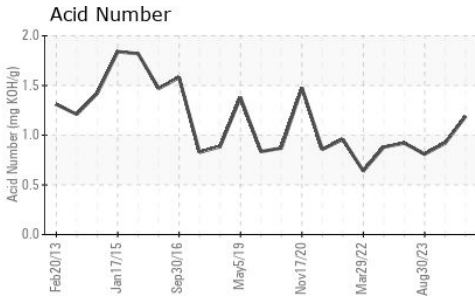
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	7	6	6
Potassium	ppm	ASTM D5185m	>20	2	7	7
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	LIGHT	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	▲ MODER
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

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>158	2	8	3
Boron	ppm	ASTM D5185m	250	290	315	331
Barium	ppm	ASTM D5185m	10	0	0	2
Molybdenum	ppm	ASTM D5185m	100	91	113	112
Manganese	ppm	ASTM D5185m		<1	2	<1
Magnesium	ppm	ASTM D5185m	450	552	658	626
Calcium	ppm	ASTM D5185m	3000	1208	1401	1456
Phosphorus	ppm	ASTM D5185m	1150	552	788	817
Zinc	ppm	ASTM D5185m	1350	628	893	921
Sulfur	ppm	ASTM D5185m	4250	2262	2663	3280
Acid Number (AN)	mg KOH/g	ASTM D8045		1.19	0.92	0.81
Visc @ 40°C	cSt	ASTM D445	115	91.1	71.2	71.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0069926
Lab Number : 06192962
Unique Number : 11049714
Test Package : MAR 2

Received : 28 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Sean Felton

C & B MARINE
 50 E RIVERCENTER BLVD, SUITE 1180
 COVINGTON, KY
 US 41011

Contact: DAVID WESTRICH
 dwestrich@carlislebray.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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