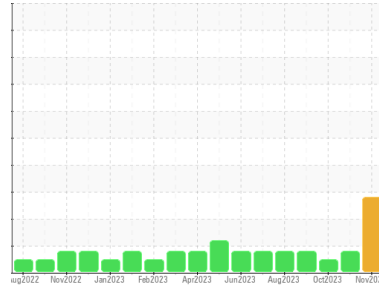




PROBLEM SUMMARY

Sample Rating Trend



WEAR



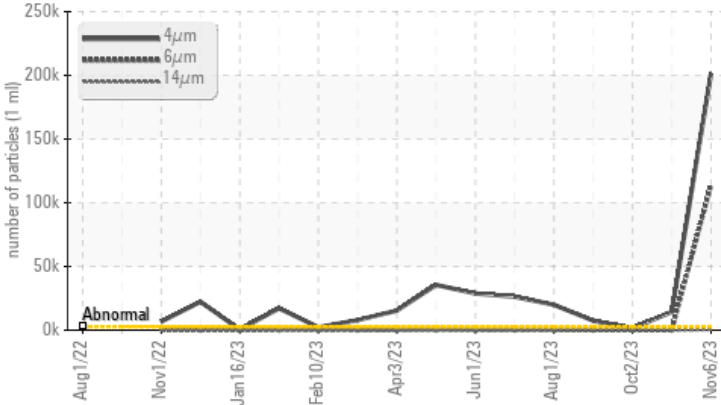
Machine Id
MERCURY MARINE

Component
Transmission (Auto)

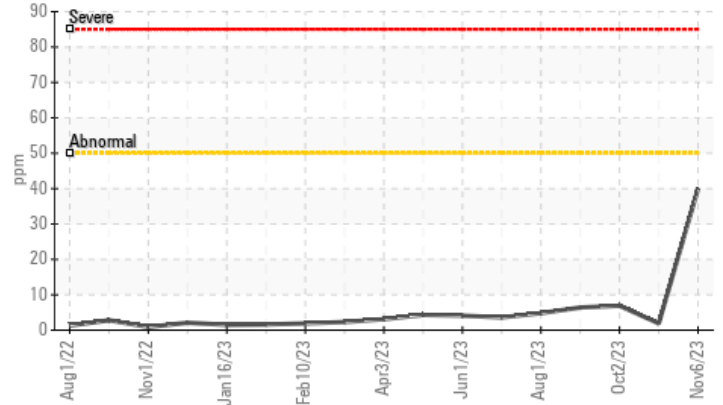
Fluid
CASTROL TRANSMAX SYNTHETIC MV ATF (45 GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



▲ Aluminum (ppm)



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	NORMAL
Aluminum	ppm	ASTM D5185m >50	▲ 40	2	7
Particles >4µm		ASTM D7647 >2500	▲ 201403	▲ 14346	1477
Particles >6µm		ASTM D7647 >640	▲ 113824	39	39
Particles >14µm		ASTM D7647 >80	▲ 419	4	4
Particles >21µm		ASTM D7647 >20	▲ 64	1	1
Oil Cleanliness		ISO 4406 (c) >18/16/13	▲ 25/24/16	▲ 21/12/9	18/12/9

Customer Id: HAWCHANC
Sample No.: WC0791134
Lab Number: 06001006
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

01 Nov 2023 Diag: Don Baldrige

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



02 Oct 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



07 Sep 2023 Diag: Don Baldrige

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

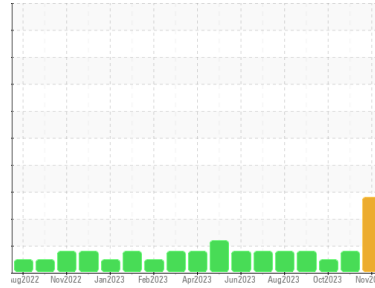
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
MERCURY MARINE

Component
Transmission (Auto)

Fluid
CASTROL TRANSMAX SYNTHETIC MV ATF (45 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

The aluminum level is marginal.

Contamination

There is a high amount of particulates present in the fluid.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0791134	WC0791130	WC0791124
Sample Date	Client Info		06 Nov 2023	01 Nov 2023	02 Oct 2023
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >160	2	0	<1
Chromium	ppm	ASTM D5185m >5	0	<1	<1
Nickel	ppm	ASTM D5185m >5	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >5	0	0	0
Aluminum	ppm	ASTM D5185m >50	▲ 40	2	7
Lead	ppm	ASTM D5185m >50	<1	<1	1
Copper	ppm	ASTM D5185m >225	<1	<1	<1
Tin	ppm	ASTM D5185m >10	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 100	100	95	98
Barium	ppm	ASTM D5185m 0	36	32	23
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m 10	<1	0	<1
Magnesium	ppm	ASTM D5185m 0	0	0	<1
Calcium	ppm	ASTM D5185m 370	73	75	74
Phosphorus	ppm	ASTM D5185m 300	207	183	205
Zinc	ppm	ASTM D5185m 0	13	3	5
Sulfur	ppm	ASTM D5185m 1600	795	909	973

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	2	<1	1
Sodium	ppm	ASTM D5185m	5	0	3
Potassium	ppm	ASTM D5185m >20	0	2	<1

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ 201403	▲ 14346	1477
Particles >6µm	ASTM D7647	>640	▲ 113824	39	39
Particles >14µm	ASTM D7647	>80	▲ 419	4	4
Particles >21µm	ASTM D7647	>20	▲ 64	1	1
Particles >38µm	ASTM D7647	>4	2	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 25/24/16	▲ 21/12/9	18/12/9

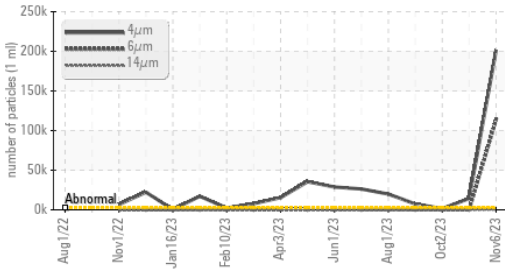
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.88	0.83	0.81

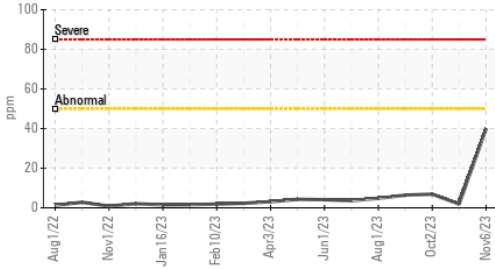


OIL ANALYSIS REPORT

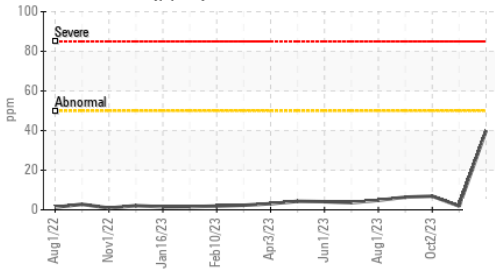
▲ Particle Trend



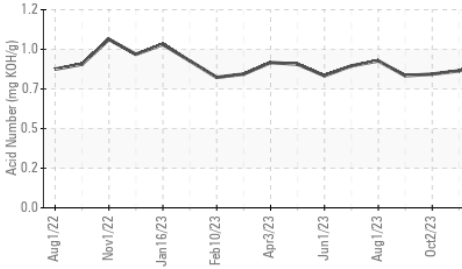
▲ Aluminum (ppm)



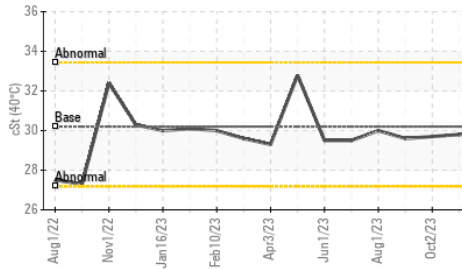
▲ Aluminum (ppm)



Acid Number



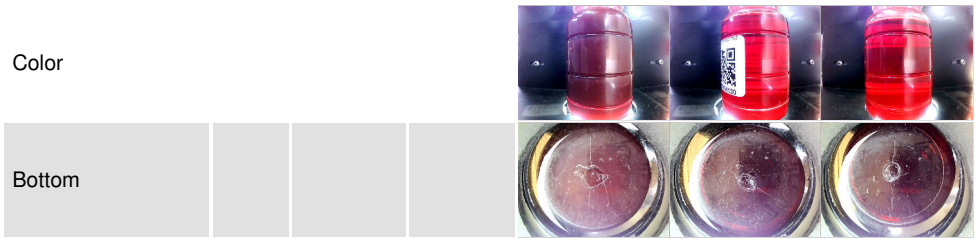
Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

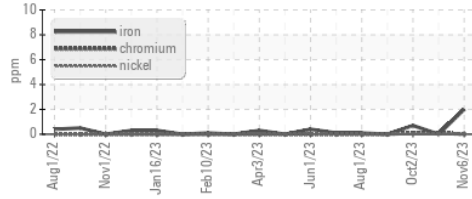
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	30.2	29.9	29.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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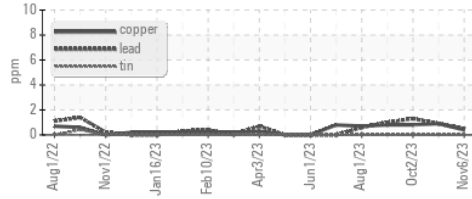


GRAPHS

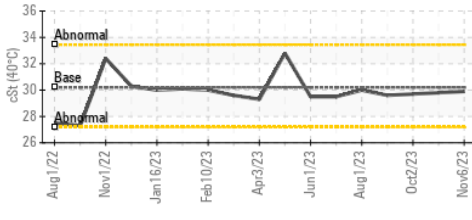
Ferrous Alloys



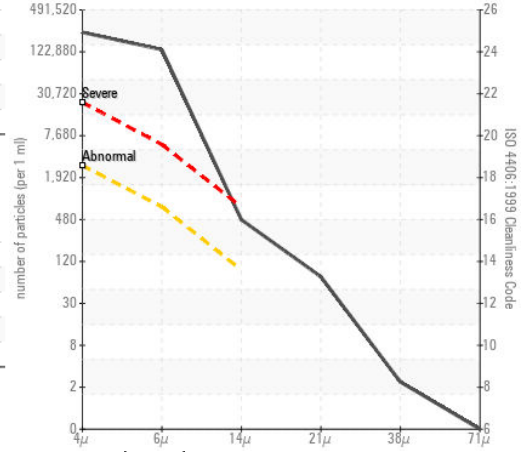
Non-ferrous Metals



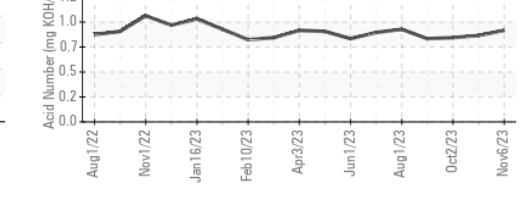
Viscosity @ 40°C



▲ Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0791134 **Received** : 07 Nov 2023
Lab Number : 06001006 **Diagnosed** : 09 Nov 2023
Unique Number : 10729366 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: PrtCount)

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 US 28078
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 k.smith@hawe.com
 T: (704)927-5610
 F: (704)509-6302

Certificate L2367
 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)