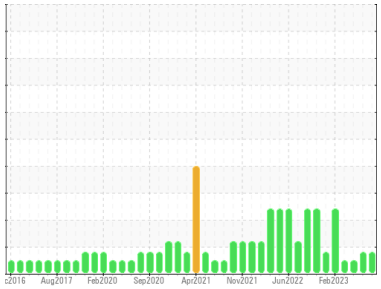
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
NEW FLYER 1102
Component
Diesel Engine
Fluid
SAFETY-KLEEN PERFORMANCE PLUS XHD-7 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation
We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

▲ Wear
Copper ppm levels are abnormal. Bearing wear is indicated.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0830127**	WC0791505	WC0811428
Sample Date		Client Info		**08 Aug 2023**	28 Jun 2023	10 May 2023
Machine Age	kms	Client Info		**821203**	0	803733
Oil Age	kms	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	<1.0
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	**17**	27	18
Chromium	ppm	ASTM D5185(m)	>5	**<1**	1	<1
Nickel	ppm	ASTM D5185(m)	>4	**0**	0	0
Titanium	ppm	ASTM D5185(m)	>2	**<1**	<1	<1
Silver	ppm	ASTM D5185(m)	>2	**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	**1**	1	2
Lead	ppm	ASTM D5185(m)	>25	**6**	6	2
Copper	ppm	ASTM D5185(m)	>100	▲ **170**	▲ 194	4
Tin	ppm	ASTM D5185(m)	>4	**<1**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	0	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

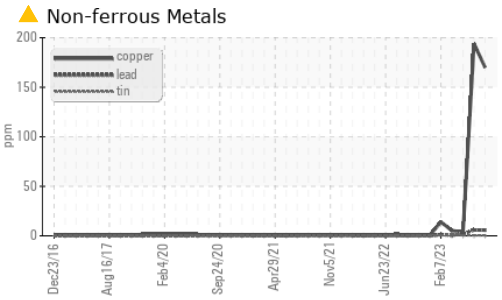
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**18**	1	2
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**51**	60	60
Manganese	ppm	ASTM D5185(m)		**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)		**836**	981	973
Calcium	ppm	ASTM D5185(m)		**1180**	1034	1103
Phosphorus	ppm	ASTM D5185(m)		**783**	1070	1093
Zinc	ppm	ASTM D5185(m)		**899**	1213	1217
Sulfur	ppm	ASTM D5185(m)		**1854**	2480	2686
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

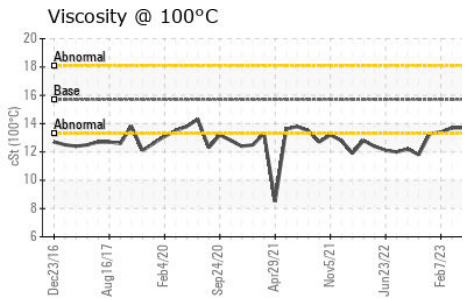
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**5**	5	6
Sodium	ppm	ASTM D5185(m)		**4**	4	6
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	**0.6**	0.7	0.3
Nitration	Abs/cm	ASTM D7624*	>20	**10.5**	8.7	7.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	**23.2**	21.9	20.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**21.2**	18.3	15.2

OIL ANALYSIS REPORT

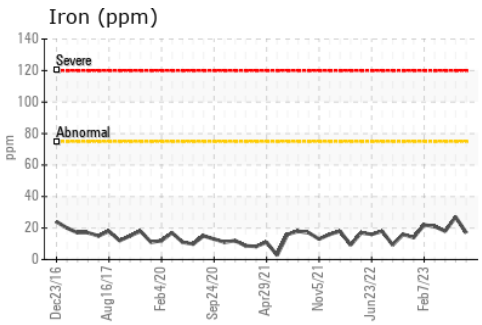


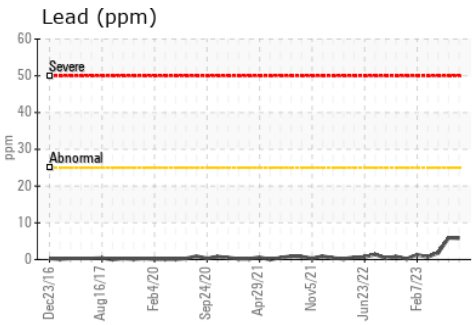


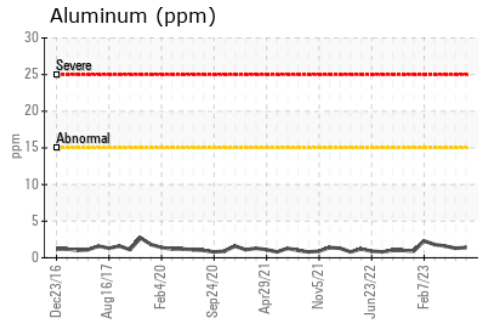
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

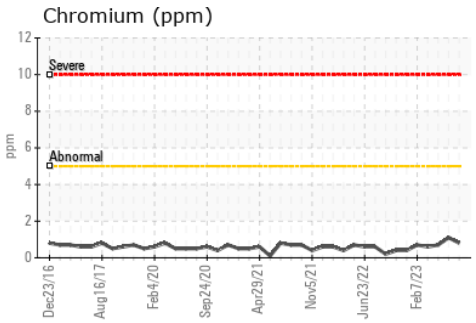
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	**13.8**	13.7	13.7

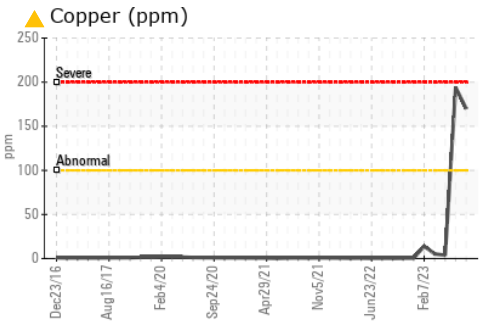
GRAPHS

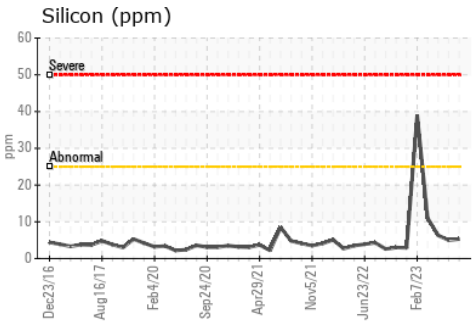


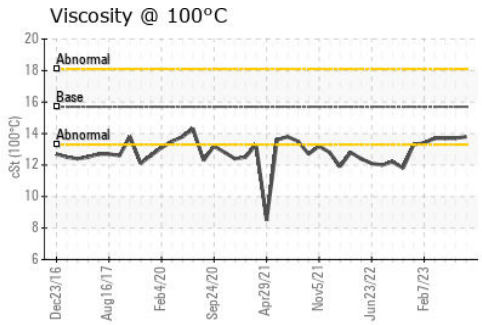


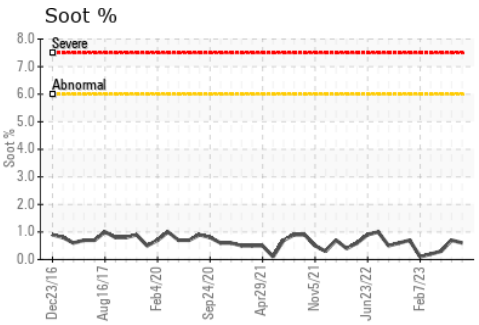












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0830127
Lab Number : 02575635
Unique Number : 5620686
Test Package : MOB 1

Received : 14 Aug 2023
Diagnosed : 14 Aug 2023
Diagnostician : Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

CITY OF HAMILTON
2200 UPPER JAMES,, MOUNTAIN TRANSIT STOREROOM
MOUNT HOPE, ON
CA L0R 1W0
Contact: Jeff Parr
jeff.parr@hamilton.ca
T: (905)546-2424
F: (905)679-4502