

OIL ANALYSIS REPORT

Sample Rating Trend



NEW FLYER 1007

Diesel Engine

SAFETY-KLEEN PERFORMANCE PLUS XHD-7 15W40 (--- GAL)

2017 Duz2019 Jud220 Muz2021 Nuv2022 Jun2023 Oct2023

FUEL

SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0937203	WC0917562	WC0890939
Sample Date		Client Info		25 Jun 2024	15 Mar 2024	08 Feb 2024
Machine Age	kms	Client Info		1052030	1038274	1028492
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	SEVERE	SEVERE
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	50	45	26
Chromium	ppm	ASTM D5185(m)	>5	2	1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	3	2	2
Lead	ppm	ASTM D5185(m)	>25	2	1	<1
Copper	ppm	ASTM D5185(m)		3	3	4
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
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)		<1	<1	<1
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm				00	
Manganese		ASTM D5185(m)		61	63	59
	ppm	ASTM D5185(m)		61 <1	0	59 0
Magnesium	ppm ppm					
-		ASTM D5185(m)		<1	0	0
Magnesium	ppm	ASTM D5185(m) ASTM D5185(m)		<1 1007	0 930	0 962
Magnesium Calcium	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 1007 1086	0 930 1021	0 962 1044
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 1007 1086 1013	0 930 1021 1013	0 962 1044 976
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 1007 1086 1013 1260	0 930 1021 1013 1202	0 962 1044 976 1170
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	<1 1007 1086 1013 1260 2352	0 930 1021 1013 1202 2444	0 962 1044 976 1170 2472 <1
Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >25	<1 1007 1086 1013 1260 2352 <1	0 930 1021 1013 1202 2444 <1	0 962 1044 976 1170 2472 <1
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 1007 1086 1013 1260 2352 <1 current	0 930 1021 1013 1202 2444 <1 history1	0 962 1044 976 1170 2472 <1 kistory2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 1007 1086 1013 1260 2352 <1 current 4	0 930 1021 1013 1202 2444 <1 kistory1 4	0 962 1044 976 1170 2472 <1 history2 3
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>25	<1 1007 1086 1013 1260 2352 <1 current 4 7	0 930 1021 1013 1202 2444 <1 <1 history1 4 4	0 962 1044 976 1170 2472 <1 kistory2 3 5
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>25 >20	<1 1007 1086 1013 1260 2352 <1 current 4 7 4	0 930 1021 1013 1202 2444 <1 <1 history1 4 4 2	0 962 1044 976 1170 2472 <1 *1 history2 3 5 3
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	>25 >20 >3.0	<1 1007 1086 1013 1260 2352 <1 current 4 7 4 7 4 3	0 930 1021 1013 1202 2444 <1 <1 history1 4 4 4 2 2 ▲ 7.3	0 962 1044 976 1170 2472 <1 history2 3 5 3 5 3 3 • 6.6
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185(m) ASTM D5185(m)	>25 >20 >3.0 limit/base	<1 1007 1086 1013 1260 2352 <1 current 4 7 4 3 2 2 3 2 current	0 930 1021 1013 1202 2444 <1 * * * * * * * * * * * * * * * * * *	0 962 1044 976 1170 2472 <1 history2 3 5 3 3 ▲ 6.6 history2

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

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.



OIL ANALYSIS REPORT

Abs/.1mm

method

ASTM D7414*

limit/base

>25

current

current

current

25.9

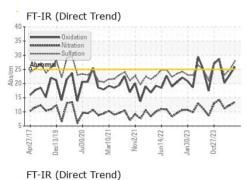
NEG

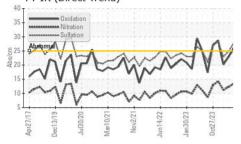
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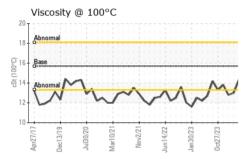
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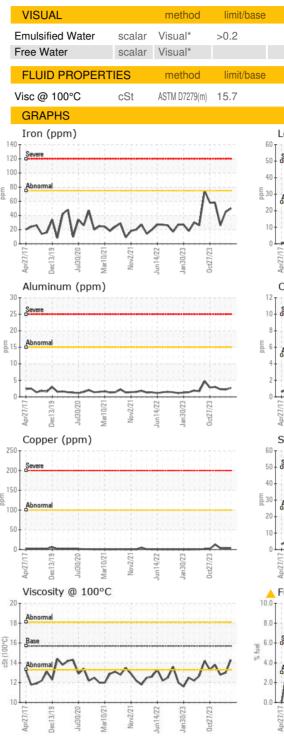
FLUID DEGRADATION

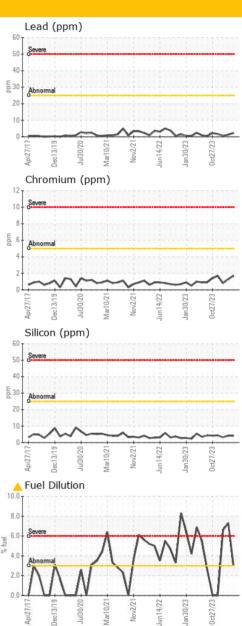
Oxidation











history1

history1

historv1

23.0

NEG

NEG

13.0

history2

history2

historv2

20.2

NEG

NEG

12.8

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **CITY OF HAMILTON** CALA 2200 UPPER JAMES,, MOUNTAIN TRANSIT STOREROOM Sample No. : WC0937203 Received : 28 Jun 2024 Lab Number : 02644529 Tested : 02 Jul 2024 MOUNT HOPE, ON ISO 17025:2017 Accredited Laboratory Unique Number : 5802068 Diagnosed : 02 Jul 2024 - Kevin Marson CA LOR 1W0 Test Package : MOB 1 (Additional Tests: PercentFuel) Contact: Jeff Parr To discuss this sample report, contact Customer Service at 1-800-268-2131. jeff.parr@hamilton.ca T: (905)546-2424 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. F: (905)679-4502

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Contact/Location: Jeff Parr - HAMHAM

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