



Machine Id  
**NEWFLYER 1923**  
Component  
**Diesel Engine**  
Fluid  
**{not provided} (28 QTS)**

### RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

### WEAR

All component wear rates are normal.

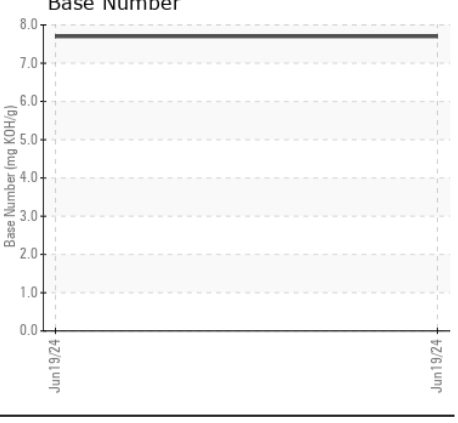
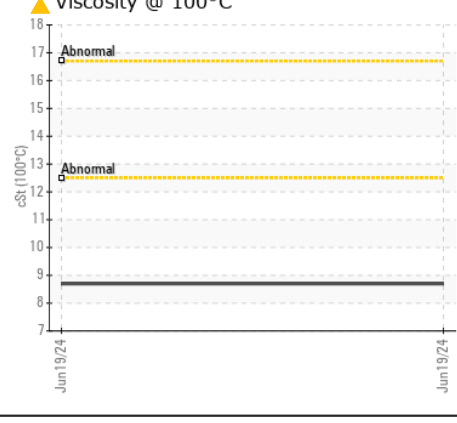
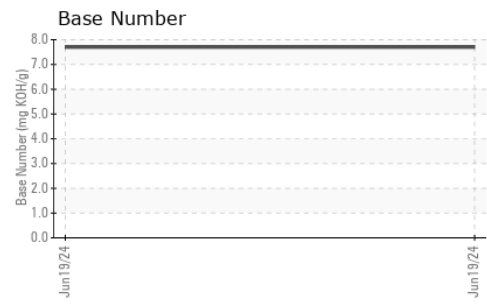
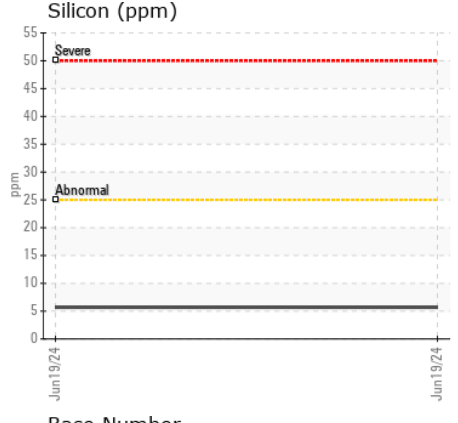
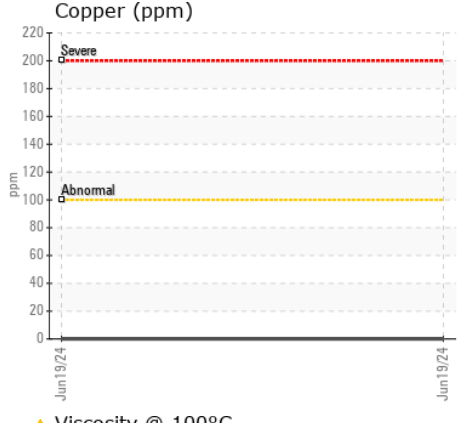
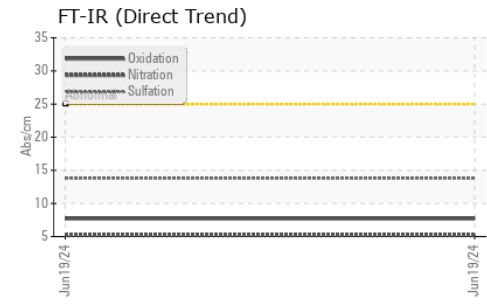
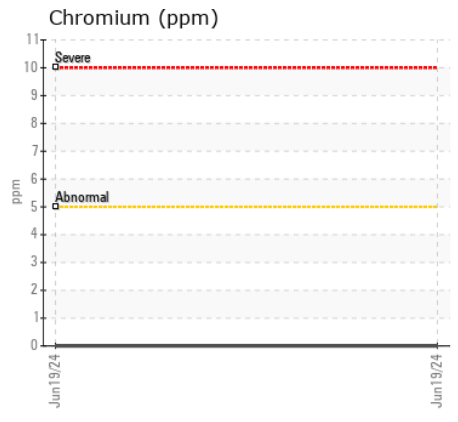
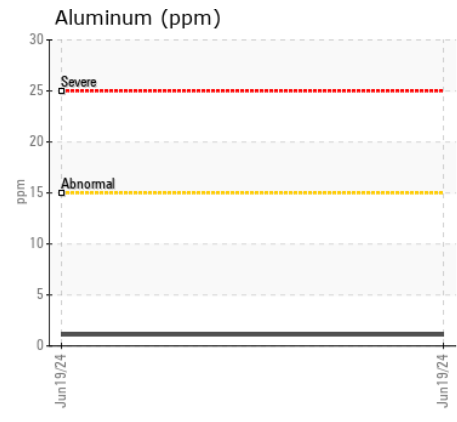
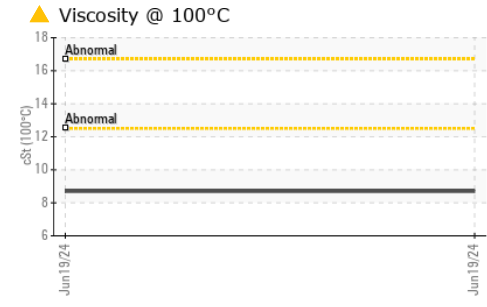
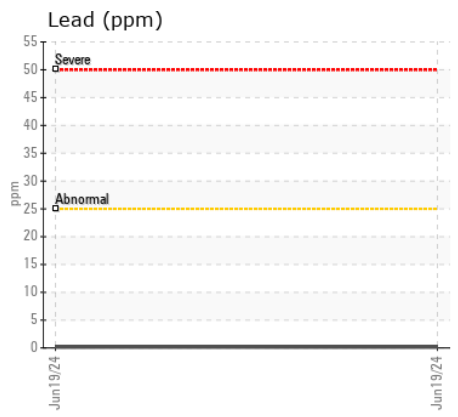
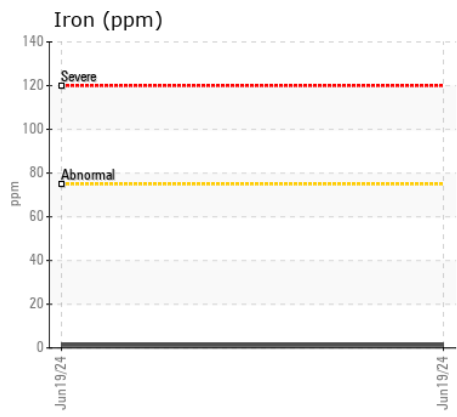
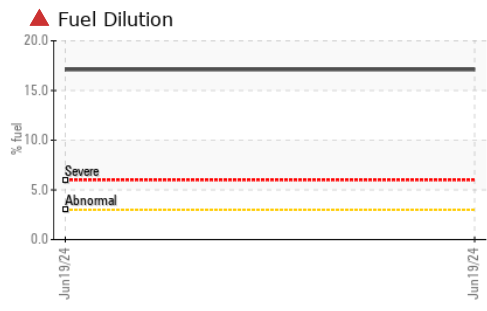
### CONTAMINATION

There is a high amount of fuel present in the oil. There is a moderate amount of visible silt present in the sample.

### FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0001886	---	---
Sample Date		Client Info		19 Jun 2024	---	---
Machine Age	mls	Client Info		228727	---	---
Oil Age	mls	Client Info		228727	---	---
Filter Age	mls	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---
Iron	ppm	ASTM D5185m	>75	1	---	---
Chromium	ppm	ASTM D5185m	>5	0	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>15	1	---	---
Lead	ppm	ASTM D5185m	>25	<1	---	---
Copper	ppm	ASTM D5185m	>100	0	---	---
Tin	ppm	ASTM D5185m	>4	0	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>25	6	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel	%	ASTM D3524	>3.0	▲ 17.1	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>6	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	5.2	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	13.8	---	---
Silt	scalar	*Visual	NONE	▲ MODER	---	---
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	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m		8	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		8	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		25	---	---
Calcium	ppm	ASTM D5185m		2054	---	---
Phosphorus	ppm	ASTM D5185m		788	---	---
Zinc	ppm	ASTM D5185m		907	---	---
Sulfur	ppm	ASTM D5185m		3698	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	7.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		7.70	---	---
Visc @ 100°C	cSt	ASTM D445		▲ 8.7	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LP0001886 **Received** : 25 Jun 2024  
**Lab Number** : 06220421 **Tested** : 28 Jun 2024  
**Unique Number** : 11098618 **Diagnosed** : 28 Jun 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**GREATER PORTLAND TRANSIT DISTRICT**  
 114 VALLEY STREET  
 PORTLAND, ME  
 US 04102-3039  
 Contact: JOHN JACQUES  
 jjacques@gpmetro.org  
 T:  
 F:

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)